



A Monthly Agricultural Journal, Designed to Benefit the Planter, Farmer, Gardener, Fruit Grower and Stock Raiser.

VOL. 9:

JUNE, 1857.

NO. 6.

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
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LIGHTNING RODS.

In a former number we stated that to Dr. Franklin belonged the honor of the discovery of the means of harmlessly drawing the electricity from the clouds by metallic conductors, and although numerous *pretended* improvements have been made, in modern times, upon the lightning rod, and for which patents have been granted, we are free to assert that no real improvement has ever been made upon the plan first suggested by Franklin.

All metals are conductors of electricity, but some are better than others; copper is the best, its conducting power being many times greater than that of iron. Iron is subject to oxidation or rust, which impairs its conducting power, but being much cheaper than copper it is generally used, and if made of proper size will answer the purpose.

If a lightning rod or conductor of suitable size be properly put up it will generally convey the electricity from the cloud to the earth *harmlessly, silently and invisibly*, and although we hear of numerous instances of dwellings, churches and barns being struck with lightning, though they have yet been provided with lightning rods, this is generally owing to too small rods being used.

or to some defect in the manner of putting them up. It might possibly occur one time in many thousands that a building would be struck with lightning though properly provided with a conductor, where a cloud in a powerful storm should suddenly approach, so fully charged with electricity and coming in so close contact with the rod that its conducting capacity would prove insufficient to convey the fluid fast enough to prevent an explosion, but such instances are extremely rare.

Notwithstanding the numerous experiments that have been made with electricity, the question still remains unsettled whether the conducting power of a rod is in proportion to its external surface or to the mass composing it—whether it travels only upon the surface or penetrates the pores of the metal. Franklin assumed that it passed through the body of the conducting material. Some modern philosophers have taken the opposite ground; among these are professor Henry and others. The means by which they arrive at this conclusion have never been made public. This assumption, however, is in direct violation of established laws of artificial electricity. Assuming this ground, hollow tubes have been recommended as a substitute for solid rods, and very recently a patent has been granted for a new conductor made of a strip of sheet copper, twisted. Patents have also been granted for various forms of *insulators* for lightning conductors. These may be useful to the small conducting wire of a telegraph, over miles in extent, but as they are constructed and applied to lightning rods they may be regarded only in the light of “humbags.” It is well known to those more familiar with experimental electricity than these pretended inventors, that insulation afforded to lightning conductors by the articles referred to are of no practical value, and

as Arago very justly remarks, it is an "excess of precaution not worth the cost." J. Murray, a prominent electrician of England, alleges that nine-tenths of the conductors in Great Britain are worse than useless, because of their faulty construction, and this proportion we believe, more than holds good in our own country. In our own native town, *four* buildings, within a short period, have been struck with lightning, all of which were provided with *patent* lightning rods and *insulators*, and we hear of similar instances every year all over the country.

If the rod be of proper size, and is continued with perfect joints to the ground, and the earth be sufficiently humid to afford a free passage to the electricity, no injurious effects are likely to ensue. But if the ground be dry it becomes a non-conductor and the electricity escapes with an explosion. If the continuity of the rod be broken, and the space between the separated ends is not too great, the fluid will still pass, but sparks will be emitted at the break, as when you extend your hand near anybody or substance charged with artificial electricity. But if the passing cloud be powerfully charged, a defect in the joint will lead to an explosion, and most likely to disastrous consequences. We know of numerous instances where buildings have been struck with lightning in consequence of defective joints in the rods.

It is the nature of electricity or lightning to follow the best conductor. It will never leave a good one for a poor or less perfect one, therefore if a lightning rod be of sufficient size and perfect in all its appointments, it may be expected to convey the electricity from the clouds, not only silently but without any visible evidence of its passage to the ground. But should an explosion ever occur under such circumstances, it would probably be the result of a peculiarly humid condition of the surrounding atmosphere, and of an unusually sudden and near approach of a cloud heavily charged with electricity; but these conditions may be regarded of rare occurrence. The accidents from lightning then, that so frequently happen to buildings, provided with lightning rods must result from their defective construction or arrangement.—One great object with some of those who travel about the country, engaged in putting up lightning rods, is to do the work in the cheapest possible manner. Nor is it to be expected that many of these persons are as familiar with the nature of the subject in which they are engaged as they should be. Many of the buildings throughout the country now provided with these imper-

fect conductors are less safe than if they had none. This wonderful, mysterious agent—electricity, is not to be tampered with and we would advise every farmer about to have conductors erected on his buildings to see that all the important requisites are fulfilled.

Hay and grain stacks, and barns filled with hay and grain recently cut are more liable to strokes of lightning than dwellings, owing to the gasses that are given off by these substances in consequence of the slight degree of fermentation which they always undergo soon after being harvested.

We have thus briefly alluded to the nature and properties of electricity and the defects in lightning rods. We will now proceed to give the manner in which they should be made and put up.

Lightning rods, if made of iron may be round and should never be less than *three quarters* of an inch in diameter even for an ordinary sized house. Larger houses should have a larger rod, or two or more of them. The lower end of the rod should terminate with a large piece of iron firmly secured to it, and extend into the ground in a direction from the wall of the house, so as to always be in the moist earth, not less than six feet, or if possible into a well or the bottom of a cistern. If it is not convenient to extend the rod into the water, its lower end should be surrounded with one or two loads of pulverized charcoal. It is no doubt owing to the want of proper precaution in this respect, that buildings are sometimes injured by lightning. The earth in our dry seasons is deprived of its moisture below the end of the rod and it then becomes a poor conductor.

The manner of pointing the rod also demands attention. A number of different points for lightning rods have been patented, but they are entitled to no higher regard than the present insulators. In France lightning conductors are made to terminate with a single point. In Germany, England and America, several are frequently added, composed of various materials, but a rod terminating with a single point is as good as more, and the taper of this should not exceed *two and a half* or at most three inches, on a rod three quarters of an inch in diameter. To protect the point from rust it should be covered with a good cap of silver, well soldered on—gold or platinum are better, however, should any one choose to employ either.

Where the slender patent points are used they have been known to explode, or melt for want of sufficient size.

The height to which a single rod should extend above the main body of the building, to insure safety, is now generally admitted to be equal to half the distance to its remote point; that is, to protect a barn sixty feet long, the rod rising from the centre of the roof, will require to extend fifteen feet above the ridge.

A fruitful source of disaster is known to arise from the uses of the small square rods, now so common in many parts of the country where the pieces are joined. Where a rod is too long to be welded, the best joint is that which gives the greatest surface to the two pieces in contact, and to secure this object they should be spliced with a broad, flat cap, four inches long, allowing each part, where they came together to spread something wider than the main body of the rod, the faces fitted smooth, and the joint firmly secured with a ring covering the point of each piece.

In securing the rod to the building there is no danger in using small iron staples. For it is true as Dr. Franklin said, the lightning will never leave the rod—a larger conductor—to follow them, but the staples more likely would serve to convey electricity from the building did it contain any, to the rod. But should it be preferred to have the rod a greater distance from the building, the best way to secure it, is with braces made of baked wood, and then well painted. Two of these are used together, forming a triangle, with their ends secured to the building twelve or fifteen inches apart, the other ends brought to a point at the distance it is desired to have the rod from the building, the rod secured in its place by an iron strap, screwed to the pieces. No insulators yet made will be more safe, or found to answer a better purpose than these braces.

Cheap and Good Roofing.

S. K. R. of Saline county Missouri, wishes some information in regard to the cost and mode of putting on Composition Roofing, or anything that will answer as a substitute for boards or shingles. Something of this kind, he says, would be of great importance to prairie farmers.

The kind of composition roofs that have become so common in cities within a few years are poor things. They are usually made quite flat, and covered with thick coarse paper, dipped in tar or pitch and laid upon a rough board foundation. The paper is laid and then receives an additional coat of pitch covered with sand and gravel, but they are neither tight nor durable, being exposed to the constant action of

heat and cold, wet and dry, the paper expands and contracts alternately, and soon gives way, and the roof becomes worthless.

The cheapest roof that we are acquainted with, and one that we prefer to shingles, particularly as many shingles are now made, is covered with cloth. We know from an experience of more than fifteen years, that when properly made they are not only cheap but good.

For the foundation for the cloth a substantial covering of boards should be laid, giving the roof any desired pitch, sufficient to run off the water. Cloth known under the name of *burlap*, which is made of hemp is the best for this purpose. It is woven from one to six yards wide and is much used for oil floor cloths. That which is 1 1/4 yards wide is usually bought for about 14 cents per yard but the widest is the best for roofing. It should be spread lightly over the roof and lapped at the seams and well tacked down with small pieces of cloth under the heads of the tacks; a few tacks should also be put in the middle to secure it from the wind until painted and finished. It should now receive a thick coat of paint; spruce yellow, or what is termed mineral or fire proof paint, costing but a few cents per pound, with linseed oil, makes a cheap, substantial paint. After the first coat of paint is laid on, small wood strips, half an inch square, running up and down the roof should be nailed on twelve or sixteen inches apart. Slim nails with small, neat points should be selected for the wood strips. Then one or more coats of paint should be applied. If the house is strong and the boards for the roof are well laid on, such a roof will out-last the common shingle roof.

We have for some time intended giving a plan for building not only a cheap but good, substantial house that will be warm in winter and cool in summer, with this kind of roof. We will take the subject up at a future time.

Why is Clover Beneficial to Land?

Because it derives a vast amount of carbon from the air, which the clover supplies to the soil. A dry stalk of clover consists almost entirely of carbon. If a crop of clover is turned under and decays, a large quantity of carbon is distributed in the soil. Even if the crop is not turned under, a large amount is deposited in the soil through the roots of the plant.

Carbon forms the basis of charcoal, and by agricultural writers is frequently used synonymously with that word. It is an excellent absorbent, and for this reason is valuable in soils for

the purpose of retaining manures and all fertilizing matters. In Europe, and in many places in this country where the soil is poor and manures costly, carbon (or charcoal) is frequently scattered over heaps of manure or other substances emitting offensive odors, and the gases thus escaping will be absorbed by the charcoal. It is also an excellent absorbent of moisture, and is therefore very valuable in soils. It also renders the soil warmer, and in fine, is one of our most valuable manures. It is not our purpose here to speak of all its excellent qualities, but we wish merely to say that in no way can it be so easily and cheaply combined with the soil as by raising clover. Farmers who have tried it and seen its effects upon their soil, consider it one of the best ways of keeping their land in a fertile state, by raising it as an alternate crop.

Liberal Bequest to Agriculture.

Many thousand dollars are given annually by the wealthy for the promotion of the objects of various societies and religious denominations and in other ways for the "dissemination of useful knowledge among men," but it is seldom that we hear of instances of bequests for the promotion of the greatest of all interests to mankind—Agriculture, and we are gratified to hear recently of an exception to this rule.

Many years ago, Andre Michaux, a distinguished naturalist of France travelled through the United States, studying the botanical character of our forest trees, as well as their economical uses, and afterwards published a valuable work upon them, recently died at his residence at Vaurial, near Pontdise in France.

It is stated in a Boston paper that by his will he bequeathed to the Massachusetts Agricultural Society the sum of eight thousand dollars, for the purpose of promoting Sylva culture, (culture of forest trees,) and Horticulture, and of making experiments in the growth of trees, "in sandy, rocky and bog soils." It is also stated that the principal portion of the bequest is to be invested, for increase, in good farm land; cheap and productive land is to be purchased with another portion, and the remainder to be appropriated to seeding and planting the experimental plantations.

An appropriation of this character, under judicious management may be of vast benefit to mankind. A more thorough knowledge in the various departments of agriculture is much needed in this country, and the importance of

this knowledge is every day increasing with the increase of population, and with the rapid changes and improvements that are every where going on around us. We hope the example of this foreign born citizen will not be lost to the wealthy individuals, who, in balancing their accounts for time are frequently at a loss to know how to dispose of their wealth.

AMALGAMATION OF POTATOES.

We have frequently seen the idea advanced by those but little acquainted with the laws of vegetable physiology, that amalgamation would take place in the product if two or more varieties of potatoes were planted together in the same ground, or in the more familiar language, if different kinds of potatoes were planted together they would "mix in the hill," but we have never seen the idea seriously entertained by intelligent writers.

We copy the following from the *Farm Journal and Progressive Farmer*, of Philadelphia, Pa.:

"A pamphlet has been published in Scotland by a farmer named Craig, on the potato disease and its cure. By planting three different kinds of potatoes together last year, very favorable results were achieved. Two out of three varieties planted, had been, on previous occasions affected by the disease. All were found to be perfectly healthy and sound when dug, and experience has shown that they kept well during the winter. He believed that the potato disease may be safely attributed to the violation of one of the laws of nature, and that the generation of the malady is occasioned by the plants being too closely bred, or, in other words, by "sub-breeding," i. e. "breeding in and in."

"The lesson we derive from this is, that two or more varieties of seed potatoes should be planted in each hill."

"What say our potato philosophers to this? If the argument or objection applies to potatoes why not to turnips and to all other plants? and why not to grain, grass, fruits, &c.? What say you farmers? shall the seed be mixed? Here is an important principle mooted—who shall solve it?"

We regard the idea advanced by Mr. Craig as sheer nonsense, if he refers to planting potatoes (*the tubers*) in the ordinary way, and of course he does: In potatoes, thus grown, there is no effect from sexual fertilization and hence there can be no "sub-breeding," or "breeding in and in," and no change in the product from the tubes planted. A potato is but a bud, a part and parcel of its parent tuber—the same as a bud from the Seckel pear tree, which, if inserted into a seedling stock, will grow up and like

its parent produce Seckel pears and nothing else. The impregnation—the *breeding* of potatoes can only be effected through the blossoms and from the seed (balls) thus produced as in “turnips,” which are produced, not from buds, eyes or tuber, but from the seed alone. Ne-shannock and pink-eye potatoes, for instance, may be planted for fifty years together in the same hills and the product of each will be after its own particular kind, and no mixture, sub-breeding, or breeding in and in will take place.

There are two methods of natural propagation; one may be termed *regular* and the other *irregular*. The *regular* mode of propagation is by seeds and these are rendered fertile only by the mysterious union of two particular organs contained in the blossom.

These seeds if grown from the same variety will produce plants and “seeds after its kind.” If seeds are produced by a union of two varieties of the same species a sub-variety will be the result, partaking in some degree of the properties of both parents; and in garden vegetables, particularly, the offspring is frequently inferior in quality to both parents.

Irregular propagation is that by which nature provides herself against accidental contingencies, and multiplies certain plants by *buds* as well as by seeds. Every plant of high organization possesses the power of sending out adventitious roots from its stem and is multiplied indefinitely in this way from buds below the surface of the ground, some of the grasses are of this class. There are a few cases in which nature spontaneously throws off buds at a certain period, which take root and form new and independent plants; of these we may mention some of our garden lilies, the strawberry and the potato; and it is this class of plants that habitually ripen less seed than others, and we may infer that it is for this reason that nature has ordained additional means to preserve them.

A potato is nothing but a large, subterranean, fleshy, bud, or a cluster of buds, combining perfectly all the characteristics of its parent.

We often hear of instances of potatoes “mixing” and producing tubers of various colors, &c. If these facts were fully investigated it would be found that the “ring streaked and spotted” were the product of some stray tubers that either remained in the ground from a previous crop, or a different variety had found its way among those planted.

It is from the hints afforded by nature in this method of propagation by buds that man has been led to practice the art of budding and

grafting, by which varieties of our choicest fruits such as apples, pears, peaches, &c., are multiplied indefinitely, each variety perfectly preserving its own identity forever; and so it is with the potato.

Since writing the foregoing, we notice in the *Country Gentleman* a communication relating a statement from a gentleman of “undoubted integrity” who, the writer says, planted dark colored potatoes (Negro Toes) between two rows of a white variety. Upon digging them in the fall, the former variety “came out” unchanged in color, while a large portion of the latter had “amalgamated” with the former. The shape and flavor of the potatoes were not perceptibly altered, but they were covered with patches and stripes of black—as black as the Negro Toes themselves. The writer asks for an explanation of this singular fact, which he says can be “fully substantiated by reliable testimony.”—The editor replies in substance that by no known law of vegetable physiology, can the “fact” be accounted for, but by an inadvertent mixing of seed, or a simple “freak of nature.” Such a thing might be possible and he thinks that the tubers would be no more likely to change their color through the earth in rows three feet apart or even if the seed were planted in contact, “than a white horse to become affected with black streaks by a black horse travelling on the adjacent highway.”

At what Period of Maturity should Grass be Cut?—Hay Making.

As no single crop in the United States equals in value the grass crop for pasturage and hay, it is important to inquire at what period grass should be cut, and to practice the modes of curing the hay that will insure the greatest proportion of nutritive matter.

Although farmers differ in their opinions and practice in regard to the proper time of cutting grass, yet scientific investigations would seem to leave but little doubt upon the subject. The nutritive properties of the grasses consist chiefly in albumen, gum, starch and sugar. The question then is, at what period do they possess these in the greatest perfection? A correct knowledge of vegetable growth and development would fix this at the period of maturity of the stem or at the time of blossoming, and this is confirmed by chemical analysis. The object of nature is, the maturity of the seed, for the production of its kind. When the stem has attained its growth it abounds in the properties

for the maturity of the seed, and if the seed are allowed to ripen the stem is deprived of a large proportion of these nutritive properties, leaving little else than woody fibre.

An objection to this rule is urged by many in favor of timothy, and experience proves not without some substantial reasons, and these reasons apply with more force to the farmers of the South and West, than to those occupying sections of country more naturally adapted to the grasses. In Northern Europe and the colder portions of the United States there is a much larger variety of grasses cultivated than are adapted to our Western climate and where this rule is more universally applicable. In those countries if grass is cut about the time of flowering, the hay is not only more nutritious and palatable, but a luxuriant aftermath is secured which is greatly impaired in value if the cutting is deferred until the grass has matured its seed. But in the West, timothy constitutes the principal grass grown for hay, and it is claimed by many intelligent farmers that when it is permitted to stand until the seeds begin to fill, or approaching maturity, the hay is not only more nutritious and fattening, but that stock eat it with a better relish than when it is cut at an earlier stage of its growth. This opinion is also sustained by Mr. Sinclair, of England, who says "that in point of nutritive matter the ripe crop greatly exceeds the crop at the time of flowering," but he does not give the reasons for this conclusion. We think it may readily be traced to the large quantity of seed produced by this grass. In this respect it may almost be ranked among the grains. The yield is often as much as fifteen or twenty bushels, and sometimes reaches thirty bushels per acre. In weight it is greater than oats and but little short of corn, and is very rich in farinaceous or fattening properties, yet it is not to this quality alone in timothy that the exception to the general rule of cutting at the time of blossoming must be attributed. But there are other and more important reasons why this variety of grass should be allowed to stand to a later period before it is cut. The roots of timothy differ from all other cultivated grasses, being less fibrous and more of the bulbous character. It is in these bulbs that the vitality of the plant is contained during winter and they cannot arrive at perfect maturity, which is necessary for the health and perpetuity of the meadow, if the grass is cut before nearly ripe. Another reason may be given in favor of permitting timothy to stand until it is more matured, and against the

general rule, is it produces little or no after growth, and the roots are liable to injury from the dry weather and burning sun that usually follow harvest in our Western climate. For this reason regard should also be had, and in cutting, the machine should not be allowed to run too low, but let it be so adjusted as to leave at least three inches of stubble upon the ground for the protection of the roots. We are confident that our timothy meadows are too often injured for want of proper care in these respects and particularly in allowing the stubble to be grazed and trampled upon by stock during fall and winter. All other grasses will bear this better than timothy.

As we have said the grasses generally attain their full development at the time of flowering, and then possess the highest per centage of soluble materials, viz: starch, sugar, gum, &c., while the mere stem or woody fibre principally serves as the medium of conveying these substances to the digestive apparatus of the animal, and for the purpose of distension and healthy digestion. For this reason we would urge the importance of cutting orchard grass, red top, and clover at the time generally prescribed, as their seeds are of but little value of themselves as food, while the aftermath will be materially increased by early cutting.

Curing Hay.—In order to secure the nutritious properties of grass in the greatest degree of perfection special care must be taken in curing. Exposure to rain and dews is most injurious to hay, and the object should be to cure it and get it in, in the least possible time. If the weather is favorable one good day is sufficient to cure all hay, except, perhaps clover. Grass that is cut in the morning should be got in before night. If the weather is unfavorable and it has not parted with its moisture it should be cocked up at night and left in heavy winrows, and opened again in the morning, and as soon as the moisture has dried off it should be hauled in.

Clover.—In order to make good clover hay it will not bear that exposure to the sun and air that the grasses, proper, will; for if dried too much its rich juices escape, and the leaves, which are the most tender and valuable part, crumble and fall off. The object should be to cure it as much in the cock as possible, leaving it exposed to the sun only so long as is necessary to allow it to wilt a little, and expel the external moisture. As a general rule clover that is cut in the morning may be put up in cocks by night, and that which is cut in the afternoon should lay until the morning dew has escaped and then be

immediately cocked up. The cocks should be small, and usually in about four days the hay will be ready to haul in. On the last day the cocks should be turned over that the dampness at the bottom may escape. When clover hay is stacked or put away in the barn its quality will be improved by the application of about two or three quarts of salt to each ton. The salt also checks the liability to heat, and on this account may be stacked earlier than when no salt is applied. Clover hay well cured is liked by all kinds of stock and for milch cows is much better than timothy.

A CHEAP LUXURY.

The last few years of extraordinary productiveness and high prices have enabled every farmer of proper industry and skill to make something more than enough to furnish him with the mere necessities of life—the eating, drinking and clothing—and he should devote a part of his time and earnings to furnish himself and family with some of its *comforts and luxuries*. Don't start, prudent and economical farmer! We are not going to advise you to get an enamelled carriage, with a coat of arms—or a five hundred dollar piano or a hundred dollar shawl for your wife. The luxury we suggest, though the gratification derived therefrom is almost incalculable, will cost comparatively nothing. It is that you shall properly beautify and adorn your *home*. And to do this you do not stand in absolute need of any thing but what nature has given you in plenty at your very doors—Trees, Grass and Flowers.

Do not object that you have not a fine, large house. It matters not whether you live in a mansion, a cottage or a cabin. Nature's embellishments harmonize with and beautify any object they may surround. Nature does not work in the artistic straight jacket style of *adaptation*. Therefore, during the coming summer, make your home beautiful by surrounding it with shade trees, a nice grass-plot, and a few flower-beds. To do this, you need no costly or tender exotics. If you have a taste for them and money to spend for them we will not object. But the flourishing and hardy plants of our own soil are quite as beautiful, if not as novel, and require much less care and trouble.

We have not room to give you particular directions as to what and how you should plant. Clear off as large a plot of ground for a yard, as you can conveniently spare—you need not fear that your American utilitarianism will suf-

fer you to devote too much to the purpose. It must be kept clear of chips, brush, straw or other litter. Set out whatever kind of trees you may like, so that they grow rapidly, have a large spreading top, a dense foliage, and are free from vermin. The Catalpa, Locust, Elm, Maple, Sycamore, Mulberry and many others will do and look well. If the grass on your plat does not grow spontaneously, sow the seed of the blue grass. The selection and cultivation of flowers you may leave to your wife or daughters, only do not forget to help them prepare the beds—we warrant they will attend to the rest.

We repeat then, treat yourself to the luxury of a beautiful home, from henceforward. It will promote both health and cheerfulness. The Garden of Eden contained but little more than trees, grass and flowers; and with but a little trouble and expense, every man may have a small paradise of his own.

[For the Valley Farmer.]

HEDGE FENCES.

MESSRS. EDITORS:—Please publish the following in the June number of the Valley Farmer as a matter of common interest. The season justifies delay, and the scarcity of plants may induce many to resort to the expedient recommended, whose reports of success or failure we shall all be glad to have next year. S. & L.

CIRCULAR—EXTRA.

Without any ceremonial complimentary etceteras, we haste to tell the cause for this *Extra Circular*.

We find that many for whom we have contracted to set hedge the present spring, will be disappointed; for it is out of our power to get enough plants. We are sorry to have thus to announce that we must fall short of supply to the extent of forty miles or more.

The object of this Circular is, to persuade our customers (and others) who have their lines of ground ready, and wish not to lose the opportunity, or protract the time of having their fences started, to use Seed the present spring, instead of plants.

We recommend this plan as a *better* alternative than to wait a year, and as *more sure* than fall setting, *provided*, conditions are complied with, and care bestowed in accordance with the examples found in the succinct testimonials and experience which we are at pains to collect and present for your consideration and encouragement, as follows:

In the "Calumet," (Carlyle, Ill.) of March 29, we find a letter from "one of the oldest and most experienced hedge growers in the country," (we use the exact words of the editor,) in which he says:

"On new ground, where weeds will not be troublesome, a hedge can be made quite as soon by planting seed in the row as by setting plants. A full year in growth is lost by transplanting. In the case of using seed, the ground must be made very mellow and fine, and the seed carefully and regularly distributed along—half a bushel to the mile."

A correspondent from Lynn, Pa., in the *Genesee Farmer* for April, (page 125,) says:

"The Osage Orange is a lover of good living; in preparing either the seed bed or the hedge row, never fear getting the soil too rich. Some persons about here prefer transplanting in the hedge row, plants of one year's growth. Others sow the seed where they want the fence. I have tried both ways, and I prefer the latter where the ground can be well prepared and is not weedy."

In a communication from W. H. Wilson, of Stephenson county, Ill., published in the "*Prairie Farmer*," of March 19, (page 91,) he says:

"I advise planting Seed where the fence is wanted. It saves one year, at least in the time of getting a fence; and lines of fence started in this way will stand all weathers and severe winters better than those which are transplanted. This has been my experience."

In an answer to special enquiries to Mr. C. R. Overman, of Bloomington, Ill., on this point, he writes as follows:

"I have experience in sowing seed in the row for a hedge, and I can say it succeeds well, under favorable circumstances—in new ground, free from weeds, and secure from every annoyance. The ground must be very nicely prepared; the seed sprouted well, and sown at the rate of about one hundred seeds to every four feet. By being well protected and well nursed the first year, and by carefully filling vacancies and thinning out where necessary, it will do well, and is decidedly the cheapest way of getting a hedge."

In answer to the same inquiries, made to Prof. J. B. Turner, of Jacksonville, Ill., he replies as follows:

"In regard to putting Seed on a line for a hedge instead of plants, I may say it may do well in proper hands. The care it requires you will find but few farmers will bestow. The ground must be new and clean, free from worms, weeds, seeds, pigs, &c. With these conditions the plan may succeed well."

Here are witnesses, more than "two or three" to validate the proposed expedient. Our seal needs no apology. From the present high prices of produce, and the increased encouragement to farming pursuits, it is now seen that it will do to fence all the country!

We hereby give notice that we will keep Seed well sprouted, in order for immediate use, at both our places of abode, during the months of May and June, and will be glad to supply and carefully instruct in its management, any who may apply.

SLEEPER & LINDLY.

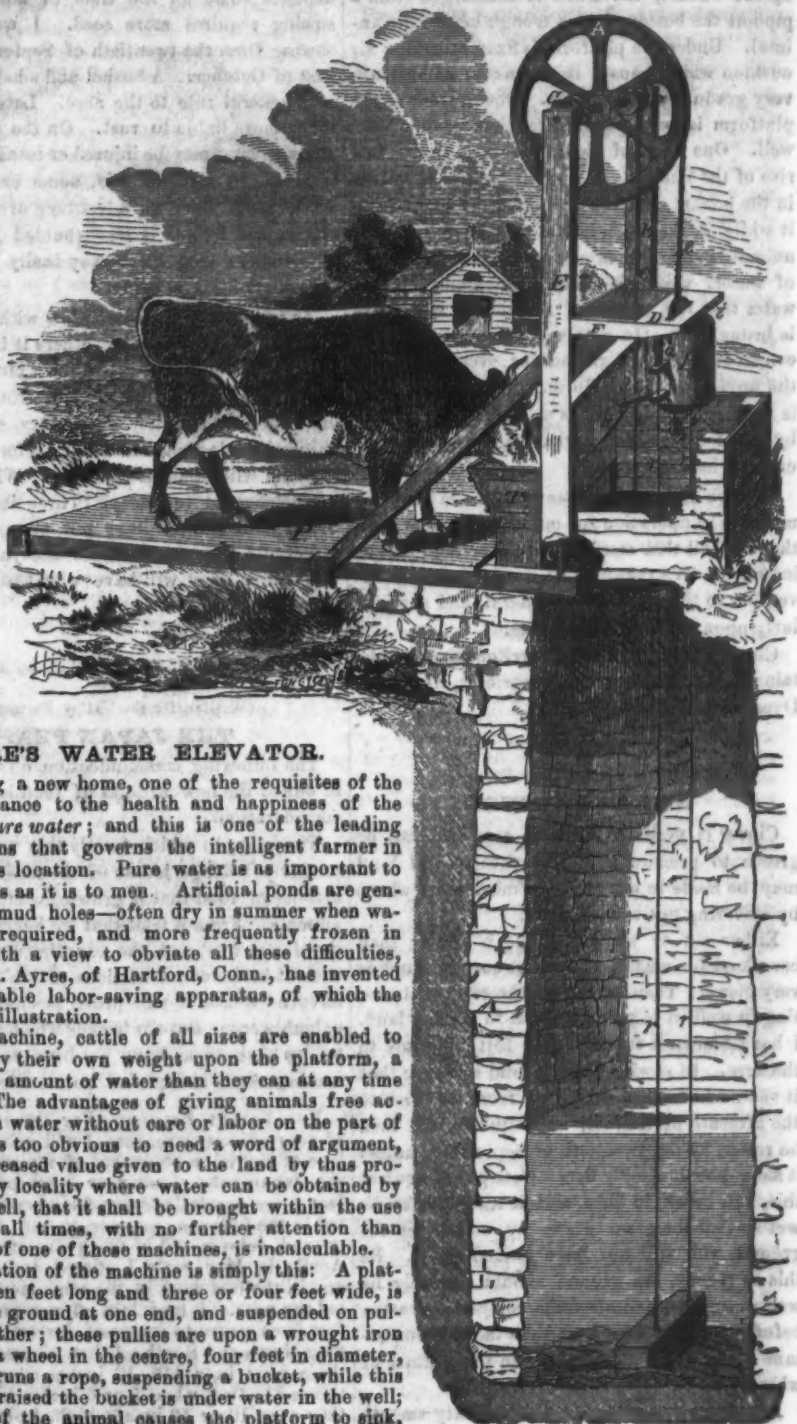


THE CANADA THISTLE.

In the December number of the *Valley Farmer* we gave some account of the Canada Thistle, with a view to guard against its introduction amongst the farmers of the West with grass seeds and by other means which have led to its dissemination already, over many parts of the country.

In a late number of the *Ohio Farmer*, a writer states that large numbers of fruit trees are sent into the State of Ohio from sections of the country where the pest abounds, which are packed in straw full of the Canada Thistle, and expresses a fear that it may be allowed to obtain a foothold in the west in this way. Farmers cannot be too guarded in this matter. In order that our readers may become familiar with its appearance we present the above cut.

Cultivate a habit of careful and accurate observation. Facts and experience are the fulcra by means of which the great lever of Reason moves the world.



AYRE'S WATER ELEVATOR.

In seeking a new home, one of the requisites of the first importance to the health and happiness of the settler is, *pure water*; and this is one of the leading considerations that governs the intelligent farmer in choosing his location. Pure water is as important to farm animals as it is to men. Artificial ponds are generally mere mud holes—often dry in summer when water is most required, and more frequently frozen in winter. With a view to obviate all these difficulties, Mr. Jared A. Ayres, of Hartford, Conn., has invented a most valuable labor-saving apparatus, of which the above is an illustration.

By this machine, cattle of all sizes are enabled to bring up, by their own weight upon the platform, a much larger amount of water than they can at any time consume. The advantages of giving animals free access to fresh water without care or labor on the part of the owner, is too obvious to need a word of argument, and the increased value given to the land by thus providing in any locality where water can be obtained by digging a well, that it shall be brought within the use of cattle at all times, with no further attention than the setting of one of these machines, is incalculable.

The operation of the machine is simply this: A platform eighteen feet long and three or four feet wide, is keyed at the ground at one end, and suspended on pulleys at the other; these pulleys are upon a wrought iron shaft, with a wheel in the centre, four feet in diameter, over which runs a rope, suspending a bucket, while this platform is raised the bucket is under water in the well; the weight of the animal causes the platform to sink,

turning in its descent the wheel, which brings up the bucket, the water is discharged from a pipe at the bottom into a trough before the animal. Under the platform is fixed a leaking air cushion which causes it to sink to its bearings very gradually without jar. The descent of the platform is proportioned to the depth of the well. One foot of descent causes twelve feet rise of the bucket. A simple system of valves in the bucket causes the water to discharge from it while in the well, until the weight of a light animal is sufficient to counterbalance the weight of water, when the valve closes and all the water that the weight of the animal will move is brought up. In ordinary wells the water elevated is about one pound for every twelve of the animal on the platform, which is more than is required, being always an excess, which can, by a water pipe, be carried to another trough, or back into the well.

We are assured by those who have seen this machine in operation for months upon the farm that it is all that can be desired for the purpose intended. We regard it as a most valuable invention to the farmers in general, and particularly upon our western prairies.

Circulars and terms for territory may be obtained by addressing the proprietor, Henry A. Dyer, Hartford, Conn.

[Written for the Valley Farmer.]

WHEAT CULTURE.

Clover is perhaps the best crop that can be grown to prepare land for wheat. Old land may be made to produce one-third more wheat by clovering one or two years.

Either oat or wheat stubble is better than corn land for wheat, unless the corn ground is very clean. Then by cutting the corn, and putting in well, it is perhaps equal to stubble land. I have known it to make near forty bushels to the acre. In sowing stubble land all agree that it should be broken early, say from the first to the fifteenth of August. The stubble will then be rotten by the twentieth of September, unless it should be unusually dry. If, to guard against this, you break in July, and it turns out to be wet so that the grass grows up, and hides the ground, you will not have gained much. Be this as it may, the ground should certainly be well pulverized and all trash completely rotten before sowing. This I consider the most important thing to be attended to in the culture of wheat.

In sowing the ground should be pretty smooth

in order to sow evenly. The quantity of seed depends some on the time of sowing. Late sowing requires more seed. I would prefer sowing from the twentieth of September to the first of October. A bushel and a half is enough as a general rule to the acre. Late sowing is much more liable to rust. On the other hand, early sowing may be injured or totally ruined by insects. In view of this, some early kind of wheat would have an advantage over later varieties, and I think is less troubled with cheat. The foulest seed wheat may easily be cleaned by swimming it in brine.

As to putting in, some plow with big plows, and then harrow in. By others it is plowed in with small plows or cultivators. Drills are not much used here yet, but I think from the principle upon which they work, they, of all agricultural implements should be preferred, where the land will admit of their use. Wheat should not be covered too deep. Three inches is far better than six. I have not attempted to instruct old farmers. Should the young follow this course, they will have wheat to sell and to keep. T.

Cooper Co., Mo.

(Written for the Valley Farmer.)

THE JAPAN PEA.

The following communication on the subject of one of the new articles of food is worthy of consideration.

The bean, to which family this variety more properly belongs is one of the most nutritious articles of food that is grown for either man or animal. From a trial that we have made with the Japan Pea, and the experiments of others with it in the warm sections of the country we have no doubt it will prove productive and a valuable crop. But our friends who have attempted to cook them have not been successful in making them tender and palatable.

EDS. VALLEY FARMER:—For the information of your numerous readers, I will ask the privilege of making a statement of my success with the Japan pea. Last year I procured a few, (say a tea-cup full) from a friend, which I planted in the following manner, to-wit: I broke the ground, (clover sod of two years standing,) in April; in May early I stirred and harrowed, and in the last week in the same month I planted my peas. I first laid off my ground three feet from centre to centre of furrow; they running North and South; I then planted my peas, three peas in a hill, 12 inches apart, which I thinned to two, when 5 or 6 inches high; when they were 10 or 12 inches high, I plowed them

once three furrows in a row with a small shov-el plow which was all the cultivation they re-ceived, and as the season was very dry you may well say the working was light. Now sir, the land on which I raised this crop is a stiff, clay subsoil, that has been worked hard for perhaps 35 or 40 years, with little or no grassing in that time, except the two years that I had it in clover, previous to the planting of the peas, and from the appearance of the land I suppose it never re-ceived a cart load of manure since it was clear-ed of its forest growth, save a light dressing of stable manure that I gave it the year previous to putting it down in clover. And now, sir, what do you think was the result of my pea crop, on this character of land? I'll tell you. I had 80 hills in 4 rows of 20 hills each, 2 plants in a hill, and I gathered after the frosts 41 pints, several plants having shed or cast their peas be-fore I was aware of that being a peculiarity.— Now sir, let us see by calculation what that would amount to per acre, 3 feet by 1 ft. gives 14,520 hills; this with the two plants per hill yielding a half pint per hill would be equal to 7,260 pints, or 113 7-16 bushels per acre, this I admit seems an enormous yield for an acre of land, and may be doubted by some, but if cal-culation can be relied on, it is true, and that the principle of calculation is correct there can be no doubt. Nor is that all, I verily believe a much larger yield than even this may be had by proper preparation and cultivation in a strong soil.

As to the value of the pea for feeding, I can-not as yet say much; hogs seem to eat them greedily, judging from their relish for those left upon the grounds after gathering. As an arti-cle of food for table use, I think them inferior to nothing in the way of dried beans or peas for winter; they are remarkably rich and marrowy when properly prepared, which consists in be-ing well boiled and dressed with butter, salt and pepper; and if they are afterwards placed in the stove or oven and baked, I am not sure that it does not add to their taste. As to table use when green, but full grown, I deem them not much, if any, inferior to the best table pea, if prepared in the same way. Indeed while in con-versation some time since with a gentleman (who by the way is quite an epicure in that way) he pro-nounces them cooked when green much superi-or to any of his garden peas, and he has 7 or 8 varieties. Taking all in all, I think for field cul-tivation, for fall and winter feeding, stock, particu-larly hogs and sheep; that there is nothing that can be more profitably raised, taking the vari-ous kinds of soil upon which they can be raised and their large yield.

J. M. B.

Pleasant Ridge, Bracken Co., Ky.

WATERMELONS.—We hope that no farmer who reads our Journal, has failed to plant a nice, large patch of Watermelons, enough for the use of his own family and some to give away to the neighbors. We call the especial attention of farmer's boys to the melon question.

[Written for the Valley Farmer.]

On the Prairie Soil of Illinois, and its Productiveness for a Succession of Crops, Especially Corn.

EDITORS OF THE VALLEY FARMER:—I perceive that in the April number of the *Valley Farmer* you have given an extract from the late report of Dr. D. D. Owen, Geologist of Kentucky.— There is a feature of that report not specially named in your extract, that has called forth the attention of the officers of the Illinois State Agricultural Society. They have applied to Dr. J. G. Norwood, our State Geologist, and who has analysed the soils of many counties in this State. To obtain the experience and ob-servations of our intelligent and old farmers on the capability of our prairie soil for contin-uous culture without manure, he has issued a circular, a copy of which lies before me. The paragraphs that close the Kentucky report, contain the points to which I desire to call the attention of the farmers in Missouri and every other prairie State. For there is no radical difference between the prairie soils of these States. Each has its varieties, and the same varieties are found in all. The analysis of the soil of Woodford and Jefferson counties, Ky., is contrasted with a "specimen of soil," said to have been taken by Dr. Peter, in 1855, "op-posite Keokuk, a few miles back from the Mis-sissippi river, just from the newly upturned prairie sod." On the analysis of this soil com-pared with the soil of Woodford and Jefferson counties, Ky., the author of the Report has ar-rived at the following practical results:

"The rich, fat, black, *silicious* prairie soils of the West are indeed wonderfully productive at first for the reason above stated; but they never can have that *permanent* productiveness of the best argillo-calcareous soils of Kentucky cultivated with any degree of judgment.

"Let not, then, the Kentucky farmer, with-out due consideration, leave the home of his nativity in the hopes of finding in the far west, land more productive than his own. Let him rather seek to gain an insight into the qualities of his soil, and adopt a frugal method of hus-banding the strength of his new land, and ren-ovating the consumed ingredients of his old."

The question to be decided is not whether manuring our prairie land is profitable, wheth-er sub-soiling, deeper plowing in the ordinary mode, or any other modern improvement in agriculture is useful, but whether our *prairie soils will soon wear out and become unproduc-tive*.

I copy the following "Questions" from Dr. Norwood's *Circular*, as they may be a guide to all observing farmers, and aid in their inves-tigations:

1. In what county do you reside?
2. How long has the land you occupy been under cultivation?
3. How many crops have you taken from it without manure?
4. Can a good crop be grown upon it now, without manure?
5. What have you to say in regard to the lasting quality of the fertility of your soil?

6. Do you believe from your own experience that the prairie soils of Illinois are equal or inferior to those of other States, so far as productiveness is concerned, for a series of years without manure?

7. Do you believe our prairie soil will grow corn for a series of years without manure?

I have not replied to Dr. Norwood's inquiries in the order in which they are given, but grouped together the facts and observations, so as to cover over the whole field of inquiry, so far as I deemed it expedient.

Rockspring, O'Fallon Depot, P. O., Ill. }
April 14, 1854. }

DR. J. G. NORWOOD, STATE GEOLOGIST—*Dear Sir*:—Your circular of the 18th March, making inquiries about the capabilities of our prairie soils to produce a succession of crops and especially maize or corn, came into my possession on the 26th of March. Being then extremely feeble from repeated attacks of illness, I was compelled to postpone an answer. Even now I am unable to go over memoranda made, and documents preserved, that would furnish collateral evidence of the correctness of the statements I send you.

At the very first of the discussion, I object against the mere chemical analysis of soils in settling the question of their certain and permanent productiveness, on the same principle that I object against chemistry as the ultimate arbiter on the question of aliment, digestion, assimilation, nutrition, and all other alimentary principles in the animal economy. Chemistry analyses and explains the nature and laws of matter in its inert state. It takes no note of the laws of physiology, or that occult mysterious thing, called *life*, and its functions in animal and vegetable existence. This science has important uses, and also its limits when applied to agriculture. But to rely on the science of chemistry as the sole and sure guide of the agriculturist is preposterous, of which the comparison of Dr. Peter of the "argillo-calcareous soil" of Kentucky, with the prairie soil of Illinois, taken from a vague locality, "opposite Keokuk, a few miles back from the Mississippi river," for corn growing, is proof direct.

In the county in which I reside, we have the experimental facts of 150 years to upset the chemical analysis and speculations of Drs. Owen and Peter. Either the soil of Dr. Peter was from a sand ridge, brought down by some of the great floods from the abraded sandstone in the upper Mississippi (for he denominates it *silticious*), or the laws of chemistry are contradicted by the laws of vegetative life.

But in reply to your inquiries in a general way:—I reside in the county of St. Clair, 18 miles from the Mississippi river, due east from St. Louis. I removed from Missouri in the month of March, 1821, and resided that year on a farm that was settled and improved about 1810. The season proved very unpropitious for corn, yet I made a good crop, say 40 bushels (eight barrels) to the acre on land that had been cultivated with corn, without manure, for ten years in succession. True, the land when prepared for culti-

vation had been denuded of timber, but I am not old enough yet to find any material difference between our timbered and prairie soils, or the uplands of this country in the production of crops, after many years of successive cultivation.

A portion of my old farm at Rockspring, 21-2 miles north of the farm I cultivated in 1821, was first cultivated in corn in 1822. I settled on a tract of "barrens," so called from the timber being shrubby, stunted and scattering, with patches of prairie, intermingled with patches of underbrush, of oak and hickory, growing from grub roots. On such tracts of new country the autumnal fires contended with the annual growth and partially or wholly killed the young timber, until settlements were made and the prairie grass destroyed.

Being, like all my neighbors, unable to fence, break up and cultivate new ground to the extent desirable, with every farmer I had to plant corn for many years in succession in the same field. The supposition that by such a process the rich soil would be soon exhausted gave us no uneasiness for it was a trifling matter to remove our fences, and make a new cornfield, as some did. Congress land in great plenty for \$1 25 per acre, adjoined nearly every farm, and from 1820 to 1835, we had no fears of speculators annoying us. Very little wheat and but occasional crops of oats were grown in this and the adjoining counties. Corn was the staple commodity of agriculture, and grown on the same ground many years in succession.

In this part of the State, the prairies lying near the timber were first cultivated. Very seldom would a settler make his pitch in the interior of a prairie. The same policy of successive crops of corn was pursued on these prairie farms. No difference in the character and quality of the soil was discovered in the farms near the timber, and those made subsequently in the interior of large prairies. The destruction of the peculiar grass of the prairies by the feeding of stock in the summer, by the growth of hazel-patches, shrubs, brushwood, and finally timber, and by the introduction of the Kentucky blue grass, has destroyed the tough, adhesive sward of our prairies that yet remain, and modified, but not essentially changed the character of our prairie soils.

My farm at Rockspring, was badly managed for many years. Absence from home a large proportion of time in my professional duties for more than twenty years, compelled me to depend on hired men who had no skill or training as agriculturists, or on annual "croppers" with the primitive "bar-share" plow, or on my sons in boyhood. The surface on barrens is more undulating than in the prairies, and while it drains off the water from excessive rains rapidly, it also has its soil washed away where the surface slopes, or small ravines exist. All these circumstances were unfavorable to the successful growth of successive crops, and especially corn. Then these barrens had a thinner and lighter soil at first than the soil of the prairies in this part of the State. I have used very little manure, except on meadow land,

and unfavorable seasons I have mowed and cured from two to three and a half tons of hay (timothy and red top) to the acre, by measurement and weight.

I have repeatedly exterminated the sour dock when it has made inroads into my meadows.—An industrious laborer, with a sharp grubbing hoe, by cutting off each plant an inch or two below the surface, and let the hot June sun pour its scorching rays on the bleeding stump, need not give himself farther trouble with this noxious weed. This operation should be performed when the weed is in blossom.

My farm was brought under cultivation at successive periods from 1822 to 1845, which then included about 60 acres of land in cultivation. My oldest field of ten acres was left to grow up in grass without seeding, after the harvest of 1842, and was broken up again and sown to wheat in 1844. The soil had been re-suscitated, and the crop of 1845 exceeded twenty bushels to the acre—an average harvest that season. Another portion of a field of nine measuring nine acres was first cultivated in 1825, and every year after run to corn, wheat, or oats; the corn repeatedly three years in succession, with crops ranging from 35 to 50 bushels to the acre. This field had been skimmed over with the bar-share plow of "croppers" till in 1845, it did not produce ten bushels of wheat to the acre. In the spring of 1846, on my return from Philadelphia, after an absence of seventeen months, I found my sons had sown this field to oats. The crop was a good one. After the stock had used up the scattering stalks of oats, and eaten the fresh grass, I instructed my sons how to break up the oat field for wheat. To a large diamond plow, (an invention of this neighborhood) they attached the fore wheels of the farm wagon with a short axle, and an old cart tongue, drawn by two stout yoke of oxen. The plow put in six inches deeper than a plow ever run in that ground before, and turned up the "argillo calcareous" earth from beneath. And there is enough left below to supply the same field for a century to come. The result was a fine crop of wheat in 1847, not less than 25 bushels to the acre.

My old fields when properly cultivated, and where the soil has not been washed off by excessive rains, will produce as much corn as they did thirty years by-gone. My opinion has long been formed that where our Illinois soils have been properly cultivated, by a rotation of crops, deep plowing, subsoiling and plowing under all the corn stalks, stubble, and weeds, whether on land originally covered with timber, or on the prairies, will last forever.

The great chemical laboratory of Almighty God, in the atmosphere and on the surface of the earth, will keep our prairie soil in order, if man will do his duty in cultivation.

The general method of cultivation, till within a few years, has been unfavorable to deciding fairly the capability of our soil for a succession of crops. Our pioneer farmers burned all their corn stalks before spring plowing. Wheat and oat stubble was also burnt over, and the prolific crop of weeds that grow with great rapidity after harvest, were cut, dried and burned. The

soils in this portion of Illinois, not only need *humus* for the successful growth of cereals, but the earth should be kept loose with these articles in a decomposed state. Else in a wet season the clayey soil will run together like melted lead, and when the drought comes it bakes.

The French who settled the villages on the American bottom about the beginning of the last century made "common fields" for cultivation. Each owner had his separate plateau, but all under a common fence. They raised for successive generations a small kind of white flint corn, and gathered from 25 to 35 bushels per acre, though no one recollects how long they cultivated this variety of corn on the same plot successively. More than thirty years since I inquired of an intelligent and aged Frenchman how long corn had been raised each year on the land he was then working, but he could give me nothing definite. He remembered that his grandfather had made corn on that plateau when he was a small boy.

American immigrants came into the present counties of Randolph and Monroe, from 1781 to 1800. They commenced making farms on the prairies and about the skirts of timber on the upland of Monroe county, near the present site of Waterloo, before 1790. Farms in that locality have been in cultivation every year since, and we hear of no failure of crops. The first American settlers came to the upland of St. Clair county, about the commencement of the present century. Captain Joseph Ogle, who brought his family from Western Virginia to the Illinois country in 1785. He and his three sons settled on the north side of a prairie about three miles north of West from Rock Spring, and long known as Ogle's prairie. Each made a farm and cultivated it while life lasted. Corn was their principal, though not exclusive crop, for they raised wheat for domestic use, and manufactured some flour on a small mill for St. Louis market. They, and some other old settlers I shall mention, when preparing for a crop of wheat, threw open the field from which they had gathered corn the preceding autumn, to the inroads of all the cattle, horses and swine in the neighborhood, to destroy the grass and weeds. After corn planting was over, the field was broken up and left till about the last of September, when it was plowed again and the seed wheat put in, either with a light plowing, or with the harrow. When cultivated in this mode, the yield was from 25 to 35 bushels.—Our wheat in this county is regarded as defective, if it does not weigh from 62 to 66 pounds to the bushel. A common method of raising wheat in early times was to sow among the corn rows the latter part of August, and cover it with a light plowing between the rows. By this mode the farmers got from ten to fifteen bushels per acre. Next crop would be corn again, with a successive wheat crop intermixed.

James Lemen, senior, brought his wife and two boys to the Illinois country in 1786. They raised six sons and two daughters that became heads of families. He settled first on the American bottom, and then on the prairie at New Design (as the settlement was called) about four

miles south of Waterloo. His three eldest sons Robert, Joseph and James, settled with their young families, on a prairie, which they rightly denominated RICHLAND. Their farms joined the north line of St. Clair county. The same soil made the surface of all our prairies on an average of three feet in depth, that once existed between the American bottom and the Kaskaskia river.

The Lemens were among our most industrious and thrifty farmers; they made large farms prepared their wheat ground after the manner of the Ogles, and raised large crops of corn every year. No manure was ever hauled on their plow land. I think their corn crop for half a century would average, on the lowest estimate I can honestly make, fifty bushels to the acre each year. Often have I seen 75 bushels (or as Kentuckians reckon, 15 barrels) gathered from each acre, after continuous cultivation for fifteen or twenty years.

An observing and intelligent gentleman, and a farmer withal, now at my house, has just given me a fact from Jersey county where he resided in 1851, and boarded with a Mr. Landon, who settled on a prairie farm eighteen years previous. His corn field had been broken up from the prairie the season before he purchased it. It had produced successive crops of each year, and the nineteenth crop was then standing in the field and was estimated by the owner and my informant at seventy-five bushels to the acre. This is no tale of romance about Illinois prairies.

I could give 100 more individual proofs of the capability of the prairie soil of Illinois to last forever, under a correct system of cultivation. I do not regret in discussing your questions, the very unfavorable circumstances under which our experiments have been made. They add force to the evidence in our favor. I add one more fact.

Within sight of my residence is a field of sixteen acres, once a part of my farm but now owned by a neighbor. It was first cultivated in 1840, and produced crops of corn, wheat and oats each successive year. Corn was repeatedly planted two years in succession. It now has the seventh crop of wheat on the ground, in successive seasons. Each harvest has been a gain on the preceding one. Last harvest it yielded more bushels to the acre and of a better quality than any preceding year. The straw has been removed each year and no manure added.

Though not in consecutive order, I think I have answered your questions to a sufficient extent. If other old pioneer farmers will furnish you the result of their observations and experiments, and those of their neighbors, you will be able to convince Kentucky emigrants to this State of the fallacy of the speculations of the distinguished geologist of that State predicted on the analysis of his "assistant," who obtained "silicious soil" [from some sand ridge] in 1855, "opposite Keokuk"—"and a few miles back from the Mississippi river"—"from the newly up-turned prairie."

Respectfully, Yours, J. M. PACK.

The Vegetable Garden.

FARMERS' GARDENS.

Of all classes, the farmers in general, have the poorest gardens. Like some mechanics, whose families are generally very poorly served, if served at all, with the articles they manufacture. Farmers generally fall far short of the industrious mechanics found in villages and in the suburbs of our cities. Even the common laborer who has a small patch of ground only, is often much better supplied with vegetables than some farmers who cultivate their hundreds of acres and have the means and conveniences at hand to furnish their families with all the vegetables and fruits of a well cultivated garden; yet how very few raise anything beyond a few turnips, cabbages and potatoes. They seem to think every hour's labor expended in a garden so much labor lost.

It probably will not pay for a farmer to lay out an acre or two of land, and employ men educated to the business, to take care of it; but we aver that it *will* pay better than any other portion of the farm, to till one acre in the most thorough manner, to raise the fruits and vegetables he really wants for his own family. Laying aside the convenience, comforts and economy of having a good supply of vegetables, we have known more actual profits made from a few acres in a garden, than some farmers make from as many hundreds in a farm.

It is a reproach to the class as the feeders of the world, that their own families are not half as well supplied with fine fruits and vegetables as the mechanics and laboring men in the village. This should not be so.

But the universal or standing excuse is, that they are dependent upon field crops for their profits, and these, of course, must have all their attention, by which they mean that they have no time for the small business of sowing beds and keeping them clear of weeds. They do not believe it pays to cultivate such vegetables as are commonly cultivated in all good village gardens. They may have, to be sure, a small patch called a garden, but it is more abundantly stocked with weeds than anything else. It is so long neglected, both in planting and cultivating, that the weeds always get the start, and keep it through the season. The boys become thoroughly disgusted with it, and the term gardening is always associated in their minds, with weeding the onion bed and cutting pigweeds and purslain among the cabbages and potatoes.

There are some exceptions, we rejoice to know, as some farmers have turned over a new leaf in their book of operations, and have for a few years past cultivated a good variety of vegetables, and find it both agreeable and profitable to associate with their salt beef and pork—cabbage, parsnips, turnips, potatoes, &c.

A few dollars spent in this way, will give more satisfaction, and we venture to say, more profit than any other investment in seeds upon the farm. Try it, brother farmers, and see for yourselves. O. N. BEMENT.

Stock Raising Department.

SPARE THE CALVES.

In passing through any of the markets of our country, at this season of the year, one is struck with the great sacrifice there is made of calves for veal, while at the same time, statistics from various parts of the country show that there is a constant falling off in the supply of beef cattle compared with the increase of population.—This is evident, too, from the fact that there is a constant and steady advance in the price of beef. In our western markets beef has increased in price more than one hundred per cent. within a few years, while the price in the Eastern markets has now reached from 12 to 18 cts. per pound and upwards.

In looking over a recent report of the New York Cattle market, the number of beeves sold on the great sale day for one week was 2,579 against 3,195 for the week previous, which is 1,022 head less than the average per week for the year 1856. In addition to these there were sold the same week 712 veal calves, with lambs and swine to increase the whole number of head sold in one week to 11,260. Of the number of beeves reported for this week 996 were from the State of Illinois, and 680 from Ohio, besides a considerable number from Indiana and Iowa. This entire lot was sold at prices ranging from 10 1-2 to 12 cents per pound. What the advance is upon these prices at the retail market we do not know, but presume that the retail price is not far from 10 to 15 cents per pound. In the week following, ending April 15th, there were sold in the same market 3,384 head of beef cattle, and including calves, sheep and swine the number was extended to 15,766. Of the beef cattle there were 935 from Illinois, 796 from Ohio, and 368 were from Indiana. At these rates we do not know how a farmer can better dispose of his grass, cornstalks and grain than to convert them into beef. Stock raising is one of the most pleasant, as well as profitable branches of farming. It requires less toil, while at the same time the feed that is consumed upon the farm, and the returns made to the soil in the form of manure, is a matter of the first importance to the farmer. In selling hay and grain from the farm, there is a constant drain upon the soil, that without the best management will lead to ultimate sterility, while if the crops were consumed upon the farm, the improvement resulting therefrom to the soil, would

in some instances equal the interest upon the value of the land. With a little care in the preparation of the food, calves can be raised with a small proportion of milk.

We hope that the several stock breeding companies that are now going into operation in different parts of the West, will have a favorable influence on this department of farming.

"Hoof-Ail" in Cattle—Ergot.

We notice accounts from Ohio and various other sections of the country of a disease among the cattle, called the "hoof-ail," and by some the black leg that has been doing considerable harm during the past winter. The disease is first discovered at the lower part of the foot or toe. It is frequently so bad as to cause the hoofs, horns and ears of cattle to come off. It has been mistaken by some as the effects of frost. But there is no doubt but its origin in every instance may be traced to *ergot* in the hay, fed to the cattle.

Ergot in rye is familiar to every farmer who grows that grain, although it is not confined to rye, but often makes its appearance on the grasses, and particularly Red Top. Ergot is a disease in grain and grasses that seems to prevail more in some seasons than in others. It is considered due to an insect or parasitic fungus. Last season it was produced in large quantities on Red Top in certain low grounds, on which this grass delights, and the disease in cattle has followed where this diseased seed has been grown.

Meadows frequently infested with this diseased grass should be plowed up and seeded with more healthy grasses.

Cattle attacked with the Hoof Ail, if taken in the early stages of the disease may be cured by the following method: Confine the animal in the stall or stable, with clean floor, and with a mallet and a carpenter's chisel, cut off at a single blow say three quarters of an inch of the point of the hoof of the diseased part, repeating the blows until the hoof is cut off all around the front. If this does not cause the foot to bleed freely out again until it does. If considerable blood flows at first it will soon stop, and the animal will recover. Keep the animal up and out off the mud for a few days and with careful attention it may then be turned out.

We have known large numbers of hogs to be killed when turned into a new rye field where the ergot or spurred rye was abundant.

[Written for the Valley Farmer.]

DRENCHING HORSES.

Messrs EDITORS:—In your May number, Mr. N. Green reports the case of a horse killed, as he supposes, by "drenching," and asks for the opinion of readers more experienced in such matters. Mr. Green's horse was taken suddenly ill with what was believed to be colic, for which a small dose of salts was given, and the animal, as is the custom in cases of that disease, was afterwards "freely exercised." Mr. G. was called from home and returned after three days to find his horse very sick, breathing with great difficulty, and discharging at the nose a bloody mucus. Death occurring soon afterwards, Mr. G. opened his body and "found his lungs, with the exception of a small portion, as hard as a piece of liver, with matter lining the entire length of the windpipe," from which the writer draws the conclusion that, "the first drench was taken into the lungs, causing inflammation and death."

This is the history of a well marked case of *Pneumonia*, to which the horse is peculiarly subject, and which, if it had been recognized at once and properly treated, might probably have been relieved. The hardened lung was "hepatized," as the phrase of the faculty is, that is, converted into a liver-like mass, and other portions, affording the bloody mucus, were affected by the disease in a more advanced stage. Drenching had nothing to do with exciting the inflammation, for it is impossible to introduce more than the smallest quantity of a liquid into the windpipe, simply by pouring it into the mouth. The mechanism of the glottis effectually excludes the foreign matter, by closing the aperture designed only for the entrance of air. Mr. Green did his horse injury by compelling him to exercise. He should have kept him perfectly quiet, and as comfortable as possible.

It is an interesting fact that domestic animals, as they approach man in intelligence, are assimilated to him in the character of their diseases, being not only more liable to disease, but to disorders identical with those of the human family. Homer sung of the direful plague which wasted Troy—

"On dogs and mules the infection first began,
And then its vengeful arrows fixed on man."

Horses and dogs are subject to many of the complaints of men. *Pneumonia* destroys great numbers of them every year. In regard to the treatment of their complaints, it must be said to be most wretched. These faithful servants suffer cruelly from the quackery of their ration-

al masters. It would be far better if they were left wholly to the curative powers of nature than subjected to the veterinary practice of which they are the too common victims.

The first thing to be done when one of our domestic animals falls sick is, if possible to determine the nature of the ailment, and this having been made out, no safer rule can be laid down than to *treat the disease as it would be treated in the human subject*, with large doses, but with the same medicines.

The caption of the article which has called forth these remarks, brings to my recollection an instructive case of quackery in a horse doctor which ought to be placed on record. I had, many years ago, a young horse greatly prized, of fine gait and beautiful form. The poor fellow had been tied up one day at a sale, until long past his usual feeding hour, and in the morning, as a consequence, after eating his corn, was seized with colic. A *knowing* neighbor pronounced the case one of *boils*—that universal cause of disorder in horses as worms are in children, and equally prolific source of mischievous medication—and directed the unhappy animal to be drenched with lime water, of the consistency of cream! The simple colic, which a little whiskey or laudanum, or tincture *assa-fetida* would have relieved in an hour, or would have got well if left to itself, was thus converted into inflammation of the stomach and bowels, which ended in death after days of intense suffering.

Great ignorance prevails respecting the diseases of our domestic animals, and unfortunately the sources do not exist where we may obtain all we could wish to know in regard to them; but there are many books extant, among which the works of Youatt rank high, in which farmers would learn much that is valuable, and above all be instructed how to avoid that barbarous practice—the coarse experimenting of ignorant pretenders, by which the lives of so many noble animals are annually sacrificed.

L. P. Y.

We thank our correspondent for the valuable information he has given; there is no one better qualified to advise on such subjects than he is. While the medical profession, generally, is over supplied with practitioners, it is a matter of regret as well as surprise, that so little attention is given to the study of that science applied to animals. The amount of money involved in that species of property in the United States is immense, and yet we have but one institution in the country devoted to the study of veterinary science, and this recently established at Boston, Mass., under the supervision of Dr. Geo. Dadd. In the countries of Europe, this profession ranks in respectability with any other.

MORGAN HORSES IN MISSOURI.

Our enterprising fellow citizen, Chas. Sample, Esq., of "Castor Hill" farm, St. Louis Co., Mo., imported a number of valuable horses of the pure Morgan breed, early the past spring, from Vermont—where this celebrated breed first had its origin and where the best are to be obtained.

We recently paid Mr. Sample a visit for the purpose of examining the stock he purchased, and must say that he used excellent judgment in his selections. We have never seen finer stallions than his "Morgan Hunter" and Black Hawk Prince," and this is the universal expression of all who have seen them. They have created a good deal of excitement among the lovers of fine horses and persons far and near are flocking in to see them. Mr. Sample has several valuable Morgan Mares now in foal by some of the best stallions in Vermont. We regret that our space this month will not allow us to notice more in detail the animals he has imported. He is certainly deserving great credit for introducing this valuable stock into our State. We give the pedigree of some of his importations, which are now to be seen upon his farm 5 miles from St. Louis. viz:

"BLACK HAWK PRINCE" was foaled in 1851, the property of Mr. McKinney, of Bridport, Vt. Sired by Black Hawk, g sire, Sherman, g g sire Justin Morgan. Dam by Young Sir Walter, sire of Moscow, and he by Sir Walter. Prince is jet black, with small white star in the face, 16 hands high, and weighs 1,150 lbs.

McKinney sold him to Messrs. Gale & Wright, in April, 1854. Col. Abram Foot, of Cornwall, Vt., afterwards purchased him. He is a very fine horse, with abundance of spirit, excellent action, and a hardy constitution.

"SIR WALTER," was by Hickory, g sire, imported Whip, g g sire, Saltram, g g g sire, English Eclipse, dam, Nettletop, by Diomed. He was not kept in Vermont. He was an excellent four mile racer.

"MORGAN HUNTER" was foaled in June, 1851, sired by Damon horse, g sire, Woodbury, g g sire, Justin Morgan. Dam by the Marcy horse, he by Morgan Tally Ho, and he by Woodbury, g dam, by Woodbury.

Morgan Hunter stands 153-4 hands high, weighs 1175 lbs., is a beautiful dappled chestnut, with a heavy mane and tail.

"KATE HAYES" was sired by Silas Hale's old Green Mountain Morgan, her dam by Cook of the Rock, her grand dam by the Diomed of Keene, N. H., and from a full blood English mare.

Kate Hayes has taken the following premiums, viz: At the Windham county fair when two years old, the first premium. Also when three years old the first premium at the Vermont State Fair, and same year, the first pre-

mium at the New England horse fair—and competed with all mares and geldings of all ages at the United States Agricultural exhibition held in Boston, in 1855, where she was awarded a gratuitous and complimentary premium, there being no class in the programme of premiums for her. Now in foal to the celebrated Morgan horse, "Young Morrill."

"LADY GORDAN," was sired by Green Mountain, owned by Silas Hall, of South Reguiston. Her dam was a splendid bay, weighing about 1200 lbs, and considered the best mare in her county. Her pedigree was not known but from her build, style and action; was undoubtedly a Morgan mare, of high breeding.

"FANNY TERRY" was sired by the Lawton, horse, he by Hales Green Mountain, g g sire. Old Gifford, g g g grand sire, Woodbury, g g g g grand sire, Justin Morgan.

A PROLIFIC COW.—The Batavia Advocate notices a remarkable cow owned in that town. She is a red Devon, eight years old this spring, and has thirteen calves. In 1854 she had two calves at a birth, last year she had four, this spring three, all full grown and well formed.—Who can beat that?

THE CAMELS.—Several months ago we mentioned the fact that a ship load of Camels had been imported to try the experiment of raising and using them in this country. We now learn that in Texas we have three American Camels born under the stars and stripes, and that six more are expected soon. The little Americans are healthy and give every promise of coming in good time to maturity.

[Written for the Valley Farmer.]

THE HORSE.

Continued from page 117.

The strength of an animal is in proportion to the size and vigor of his lungs. Hence the enormous power of the Lion. Every one is familiar with this fact as displayed in the human family. A man with a broad breast and shoulders, (in good health) possesses great physical power, whilst weakness may always be observed in an opposite form. In applying this subject to the horse we involve a principle which I have maintained from the outset is of the highest importance, viz: his strength and endurance.

A proper development therefore in this respect deserves marked attention. If a horse is broad between the fore legs, breast full, and his ribs round out immediately behind his fore legs giving the body an appearance of rotundity (in opposition to being slab sided) you have excellent marks of muscular power. The chest of an animal containing the vital and moving power bears the same relation to him in many respects as a locomotive does to a train of cars. If the engine be small the load must not be very

great, and if strength is wanting the load must be proportionate. The muscle of course is another important item, but on this subject I need not dwell as the most casual observer will soon learn the difference between a full and a scant development in this regard. The gaits of a horse are important, as they are generally transmitted in some degree to the offspring. Activity and style of action generally accompany a good constitution. A horse with a perfect form (according to our ideas) seldom, if ever, paces. As we know that all things originally come from the hands of our Creator in a state of perfection, I am disposed to think that nature never taught the horse to pace, until deteriorations in the race produced imperfections in the form, and then with some this gait became natural. The rump of the pacing horse is generally steep, the hind legs are often crooked and the breast is also narrow. Pacing however is a pleasant gait for a riding horse, and pacing animals are in much demand and command high prices.—But for long journeys I would much prefer a smooth trotter, as being less fatiguing both to horse and rider. I like to see a bold fearless eye and the head up. In fast pacing a horse must have his head down in order to bear on the bit, and he generally becomes habituated to this practice. Pacing in muddy roads is also very slavish, hence, if a horse cannot trot I consider this feature objectionable.

Some consider that after a mare gets too old to be profitable for a work animal she may still be used advantageously for breeding, but this is an erroneous idea. A horse or mare either, having become superannuated is rendered incapable of bringing forth a healthy and vigorous offspring. For this reason the best colts are produced when the animals are in the full vigor of life. The offspring of aged animals on either side, besides being weakly and delicate when quite young, often have an old look, especially about the eyes and are sometimes hard to keep in order even when grown. It will be remembered however that the age of a horse depends much upon his treatment through life. Some horses are older at 10 than others are at 20. Avoid breeding to very old horses.

The color of a horse is a matter of considerable taste. There are good and bad horses of all colors. I consider a dapple grey is the handsomest color in the world, but as in the course of time it fades white, or what is worse to a flea bitten grey it is objectionable. Perhaps a bright bay taking it throughout is as good as we can find. It never fades with age, is as good as any for hardiness, and sunburns but little. Sorrel, although a good color for blood is exceedingly disliked by many. Grey horses perhaps are less liable to get sorrel colts than other colors. Some suppose that the color of a colt may be determined almost at will by having a horse for the mare to look at during, and immediately after the time of coupling, of the color intended to be produced. I once knew a black mare, to have a cream colored colt from a bay horse and no other cause could be ascribed than the fact that she always grazed in a pasture with a couple of match horses of that color. Another striking case which came under my ob-

servation, was that of a bay mare which I bred myself to a bay horse, and during the time her colt, which was by her side ran off with a sorrel horse, which jumped into the enclosure, causing the mare to become very much excited. The following spring she brought forth a chestnut sorrel colt, with very light mane and tail, and even marking accurately the white upon the head and legs of the horse, which ran off with her colt. Whether the color in these and similar cases, was produced by the mere act of looking at other horses I shall not attempt to decide, but give the facts for what they are worth. These considerations naturally lead to another subject of considerable moment, viz: the importance of a judicious selection in the breeding of a mare for her first colt. I maintain that there is an impression made, (not upon color alone) on the female by her first impregnation which is perceptible for several years afterwards. This assertion, although perhaps new to many is certainly true as a little observation will demonstrate. Perhaps the most conclusive proof on record was the case of a mare bred by Sir Eyward Home (in England) to a Quagga which was for a time allowed to run in his park. In due time the mare had a striped colt which resembled the sire very much. For three consecutive years afterwards she was bred to an Arabian horse and produced a striped colt every time. This (says an eminent physiologist) was erroneously ascribed by Sir Eyward to imagination in the mare, remembering the Quagga, when in reality it was occasioned by a permanent impression left upon the blood of the female during her first impregnation. The same writer urges the fact that not only the color but also the form may be transmitted in the same way, and my own observation has fully confirmed in my mind the truth of this principle. I have seen horses (and I am not alone in this matter) which were said to be of a certain strain when I considered that they strikingly resembled some other, and upon inquiry have discovered that the mare's first colt had been of the stock to which the last bore this striking resemblance. Instances have come under my notice in which as many as three colts have very much resembled a mule, it being the first colt. Having large, ugly heads, heavy ears, striped knees, &c. I have heard as an argument for breeding a filly to a Jack that (besides being less danger in foaling) if bred to a black one she will ever afterwards produce dark colored colts, and I know a stallion whose colts are almost invariably dark bays and browns, very often having a stripe along the back, whilst other horses of the same strain get a great many sorrels and light roans. The horse spoken of being the seventh colt, after six mules. In foregoing numbers I have given my views as to what a farm horse ought to be and I have endeavored to lay down some principles governing breeding* so that you may be assisted in raising such horses as you prefer. In the next place I propose to treat upon the manner in which a horse should be treated and managed from birth to old age. H.

*Many of these remarks will apply to all animals.

[Written for the Valley Farmer.]

GOOD VS. BAD BREED OF HOGS.

Reader, did you ever see a shoat while rooting kick up every time he bored his nose into the ground, as if trying to stand on his head? If so, don't buy him; he will not prove a profitable feeder. We might call these a subsoil variety.

Did you ever see a hog that would grab an ear of corn and run a quarter of a mile before he would stop to eat? If so, beware. We will place them in the same category and for the sake of distinction we will call them the Elm peelers. Did you ever see a tall, slab sided, long legged, razor backed breed that were always hungry, and when opportunity required, would climb up to where the rails in the fence were some distance apart and then either slip through a crack or throw off a few rails and jump over? If so, don't purchase unless you are a small farmer and can't possibly build corn cribs. We might, perhaps, call these free soilers or else barn burners.

Did you ever see a slim, dead alive kind of thing that would get so poor as to be obliged to trot before and canter behind when required to get up motion and still not die; its eyes both coming out at the same hole, or at least so near it that the hog appeared cross-eyed? If so, let us pass the dismal picture and simply call them old liners. All these breeds may be described as follows: Long ears, large, heavy heads, long and thick legs, a streak of lean underneath a thick gristle and that covered with a thick, tough hide, with abundance of bristles, and in fine a great amount of offal of every description.

Such animals have no thriftiness, no capacity to fatten, and very little about them that is digestible after they are killed.

Considering the number of hogs that are raised annually in the United States and especially as so many depend almost exclusively on the hog crop for the money they need, is it not wonderful that so few persons take pains to obtain the best varieties. Suppose you have to give \$20 or even \$50 for a pair of pigs to begin with. Is this an insufferable obstacle? I answer no. Doubtless you may procure a good breed for less money, but let us look at the practical proof, on the score of economy and see how long it would take it to pay at these figures. Suppose you have 100 hogs of the alligator or land pike breed which you sell at \$5 per hundred. 150 lbs at twelve months old will be about all you can make them weigh. Here you have \$7 50.

Again take 100 hogs of a good breed which will weigh at the same age and with less feed 250 lbs. Here you have \$12 50, making a clear profit of \$5, without taking into account the save in feeding, which would no doubt swell the profits to a much larger amount. A hog that has to be kept more than one winter before fattening will eat his head off in all cases. Hence the most profitable kinds will be found in those hogs which attain the greatest weight (without extra attention) in from 12 to 18 months.

Pick for a hog with a small, clean head;

rather small bone, body low to the ground, long and square; hams full and round; disposition quiet and pleasant. Such a hog will always insure a good return. If you can come across such hogs, whether called Berkshire, Woburn, Suffolk, Grazier or what not, get some and try them. They will not disappoint you.

A word to the wise is sufficient. * * * *

(Written for the Valley Farmer.)

Cattle Poisoned by Eating Buck-Eye Buds.

MESSES. EDITORS:—Last week I had cause to examine my agricultural and stock books for a description and cure of cows when under the effects of eating Buck-Eye buds, and finding nothing to that end, I herewith give you my experience and observations on that destructive poison. The arseculas flava or buck eye is found in several Western counties of our State and being of early growth, cattle partake of it freely before other vegetation has sprung up.

One week since I found six cows prostrated in the woods—near by the Buck eyes were thickly set—and slight examination satisfied me as to the cause. They were much swollen, eyes rolled wildly, costive, legs extended, and when raised up could not stand. If they are coming under the influence of eating the buds, it may be known by their reeling to and fro and staggering like a drunken man. Several more of our cattle were similarly affected a day or two after the first, but, by immediate attention were well in a day. Four of the six were up in two days, and the other two have not stood up during the week. If this sick cow is turned over and rubbed several times during the day it will be all the better for when they remain long in one position they evince great pain and become as tight as a drum, showing a great inclination to fall and remain in that position in which they last were. The most simple and effective cure I know, is to drench each cow with one pint of lard and May apple root tea—say one quart boiled till it is strong.

I write this hoping it may elicit something from your pen, or some of your correspondents in the "Buckeye State," which shall add greatly to our information concerning this disease.

W. D. C. G.

Bachelor's Retreat, Tenn.

The Buck Eye is evidently a narcotic and the leaves when eaten also act as an astringent.—The remedies suggested by our correspondent are undoubtedly good. If any of our readers have any experience in the treatment of animals laboring under this poison we should be pleased to hear from them.

Cattle are often killed by eating young white oak leaves. Their effects however are more fatal when eaten by cattle from the branches of trees that have been cut a day or two when the leaves are a little wilted. From their astringent nature they clog the stomach, entirely destroying its action and the leaves eaten become a dry hard mass.—Eds. V. F.

The Apiary.

[Written for the Valley Farmer.]

BEES.

BY M. QUINBY, Author of

"Mysteries of Bee Keeping Explained."

TO THE EDITORS OF THE VALLEY FARMER:—Mr. Link, of Tenn., gives us in the "Farmer" for February and March, an article on Bee culture. Much of it I like, but some of it is objectionable. Will you allow me to criticise a little?

His introductory remarks I can heartily endorse. But his hive seems expensive. I think I can obtain the same result cheaper. Ignorance as well as interest, sometimes prevents our seeing what may be effected more economically. He hits me in calling the "Bee-bench" an "intolerable nuisance." The "sloping bottom board" is recommended as better for rolling out the worms, &c." Will these advantages pay for the extra fixtures? Worms seldom leave the combs till they have their growth, and nearly all will have a thread of silk attached above, and can re-ascend if they choose. But let us suppose that the bees will tumble to the ground every one that descends to the floor of the hive. Is it the end of him? What prevents his finding a place of concealment and spinning his cocoon, and undergoing his transformation to the perfect moth—furnished with ample wings to again reach the hive, and leave his progeny? Will the moth that has undergone its transformations ten feet from the hive be any less likely to find it? I will admit that some worms will get between the bottom of the hive and the "bee bench," that I use and spin their cocoons but they are all readily exposed and destroyed by simply raising the hive. Even allowing them to mature there, would be no worse than any other place. This arrangement at least gives a chance to destroy them much better than when secreted in the grass.

He tells us to "rob a hive but once in a season however good a one it may be for honey." This conflicts materially with my practice and I must have better reasons than he gives to abandon it. My rule is, take off boxes as fast as filled—frequently obtaining three full sets from one stock—60 or 80 pounds—can't afford to throw away two thirds of the profits. I consider it the same as thrown away, because it is no advantage to have the bees idle for want of

room during a yield of honey. Many of my best stocks now, filled several sets of boxes last season. If a few pieces of white comb were fastened in the top of surplus boxes, with a little melted bees-wax, as recommended on page 18 of the *Farmer*, there would be but little trouble about bees commencing in a second set of boxes during a yield of honey.

Further he says, "About every two or three years, cut out old black combs, &c." I must call in question the economy of this. Every time the bees have to fill the hive with new combs they would otherwise store several pounds in the boxes. They cannot secrete a pound of wax, without consuming several pounds of honey—on the same principle that the ox produces tallow, or flesh, by consuming a much larger quantity of food. Aside from this waste of honey and labor, this frequent pruning is unnecessary—there is more theory than fact about it. I know what is said about the diminished cell dwarfing the young bee and all that. I know also, that the cell is either a little larger at first than actually needed by the young bee, or it does not fill up as fast as is pretended. I have good authority for believing that the same combs have been used for breeding purposes twenty years. I have had them used twelve years, and with the closest scrutiny no difference in the size of the bees matured in them could be perceived. I would extend the time to ten years at least. What he says about feeding some swarms, uniting two weak ones, &c., I would also recommend one good strong colony is worth half a dozen weak ones. If every bee keeper could keep only strong stocks, we should bear much less depredations from the moth. The remainder of his article contains so many really good things, that any one following his suggestions, cannot go far astray.

Get Your Hives Ready.

Those who keep bees should have their hives in readiness for the young swarms. If you have them on hand see that they are clean, so that they will be acceptable to the bees. Every year more or less swarms are lost by not having the hives in readiness for the bees. If you can do no better for hives, make a box of rough pine plank an inch or an inch and a quarter thick, one foot square, with a cap upon it about fourteen inches square upon which can be set another box, and holes bored through the cap, over which boxes can be placed for the reception of the surplus honey. Further directions will be given hereafter.



Horticultural Department.

PRUNING.

It is not every one who grows trees that understands the objects of pruning. If the heads of young trees are pruned and the branches shortened when they are planted according to the instructions we have, from time to time given, few branches will require to be cut off at any one time afterwards. Indeed, no tree should be allowed to grow so as to require any great amount of pruning at once. Fruit trees, that were set the past spring and duly pruned will now require occasional looking after; where a branch appears *wicky* it should be cut back still farther to a vigorous shoot, and where any superfluous or interfering branches have put forth they should be cut or rubbed off, always having in view an *open, well-balanced, symmetrical* head. These remarks are equally applicable to all fruit trees. Trees that were set in previous years require similar treatment. If fruit trees are treated in this manner from the time they are planted until they are six or eight years old, they will present uniform, handsome tops, with fair, smooth branches, with no wounds or scars to be healed and the fruit will be large, fair and well-flavored. No instrument larger than a pocket knife, or an ordinary pruning knife, should ever be used. Practicing this mode of pruning, it matters but little when it is done, but if a large number of trees are to be pruned so as to render it a business, we should prefer to do it from June to mid-summer; then the tree is making a vigorous growth and the little wounds are readily healed. Old trees, that have long been neglected, until their branches have become so thick and their heads so close and compact as neither to admit the sun nor a free circulation of air can never produce large, well-flavored, or finely colored fruit. Such trees require pruning, but it should be done with caution and not all in one year. For this kind of pruning the winter or early spring is the best time.

Mulching.

There is no operation more important in the summer treatment of trees and plants than mulching. Newly planted trees will make more than double the growth when mulched than when the surface of the ground around them is exposed through the summer to the scorching rays of the sun, and the drying winds. Many trees that die the first season after they are planted might be saved by this simple treatment. With a covering of from two to four inches of old straw, hay, sawdust or tan bark a uniform moisture is kept up in the soil during summer, however dry the weather may be. The growth of the tree too, is much more healthy, and better able to withstand the severe changes of winter than when it is prematurely and suddenly checked in summer by drouth and ready for a new and vigorous fall growth as soon as rain sets in, leaving the stem and branches in the fall filled with unelaborated sap.

If this has not already been attended to, it should no longer be delayed. The ground around the trees should be well hoed and broken up, and a covering of old straw or other litter at once applied.

Mulching is even more important to raspberry and blackberry plants, currant bushes, &c. This treatment insures strong vigorous stems and will give the following year double the supply of fruit that can be expected without it. In the country where straw is abundant the entire labor of cultivation and weeding is saved by the application of four or five inches of straw over the ground between the rows of plants.—The ground should have a good working between the rows with the cultivator and the straw then applied, covering the entire surface.

This is the great secret of the success of the gardeners at Pleasant Hill in raising the everbearing Raspberry. Their vines continue to bear in profusion from June until they are cut short by the frost in the fall.

In the culture of tomatoes, mulching will be found to produce an astonishing effect. On land not too rich a constant succession of fruit may be had through the summer. This dressing too, keeps the tomatoes from the ground and prevents rotting by which so many are lost in wet weather. If a few small brush were first laid down under the plants before the straw is applied it would be better. A hundred plants well mulched, will yield more fruit than two or three hundred cultivated in the usual way.—Try it.

[Written for the Valley Farmer.]

A FEW WORDS ON GRAPES.

In perusing the May number of the Valley Farmer, my attention was chiefly arrested by the "Premium Essay on the cultivation of the Grape in Missouri," by my esteemed friend, Geo. Husman, of Hermann, Mo. I see my own name referred to but it is mis-printed. I propose to offer some supplemental remarks to that able essay, hoping thereby to encourage others to also lay their experience before the public, and thus promote the noble cause of vine culture in our favored State.

I fully concur with all the statements of Mr. Husman. In respect to grafting I will observe that I generally commence to graft apple and pear trees and also my vines by the middle of April and continue to the middle of May, those grafted last not unfrequently growing best.—Thus my scions never suffer by late frosts, and often put out within a few days. A principal object is to have the scions well preserved—on a shady place in the ground. Peach, plum and cherry trees ought to be grafted in March.

As to "varieties of Grapes," I would remark that I deem the *Isabella*, a valuable variety in the Northern States, unfit for Missouri; that the culture of the *Catawba* will not generally pay in our State, except perhaps in some few highly favored situations; that *Norton's Virginia Seedling*, is not, according to my experience, a good bearer, and is apt to suffer by severe winters, at least the young vines are; that the *Le Noir* is too tender to suit me, if I can have hardier varieties of the same, or even greater virtues; that the *Missouri Bird's Eye*, being not productive enough, can not be relied on for extensive culture; that the *North Carolina* (what I received from the East is named "North Carolina Seedling") is highly thought of as being hardy, fruitful and fit for the table as well as for wine.

I have started five new varieties, varying in their properties and value, all being exempt from the mildew, not liable to suffer even by severe winters, with little pith and a hard, wooden fibre, therefore not growing from cuttings—the grapes not recommendable for table use, but making a fiery, highly flavored and aromatic wine. My chief objection is, that they are rather too dry, yielding about half the amount of must that the *Catawba* does; the seed is as yet too much predominant, and of juice and pulps there is too little. This, however, may be amended by further cultivation. Vinters in the old countries, state it as their experience, that Seedlings will in about the tenth generation reach at their perfection. I have now the second generation under trial, and find it in appearance much changed from the first already. My new varieties are briefly described as follows:

1 *Ozark Seedling*.—Bunches medium, compact, and in the shape of a sugar loaf; berries medium; wine purple and excellent; a good and sure bearer.

2 *Big Ozark*.—Bunches medium, compact and oblong; berries larger than of the foregoing; not unfit for the table; wine agreeable and

of a peculiar flavor; growth very rank; not a very good bearer so far.

3 *Little Ozark*.—Bunches loose and very long; berries small; the wine has a little of the acid which I dislike; very good bearer.

4 *Ozark Muscat*.—Bunches compact; berries small and of a muscat taste; wine agreeable and peculiar; the best and surest bearer I have ever seen.

5 *Wine Home*.—similar to the foregoing—yielding when fully mature, a strong and fiery wine, resembling port wine in color and quality; bears well; ripens late like all the foregoing.

As yet the preeminence seems due to the first named variety. It is doubtless superior to the *Illinois* grape which I received some years ago from Dr. Book, of Waterloo, which yields a mild and agreeable wine, resembling Burgundy, of a very dark hue. The vine has a rather rough appearance and grows exceedingly rank.

Not content with my own experiments and results, I have endeavored to procure whatever valuable in the line of grapes I could get from near and far, and I should not be surprised to see after a while all the varieties named by Mr. Husman and myself, discarded to make room for still more valuable kinds. I entertain great hopes of

1 The *Concord*, a native of New Hampshire, said to be superior to the *Catawba* in every respect, hardy and a sure bearer, ripening two weeks sooner than the *Catawba*—excellent for the table (I tasted it last fall) and making a white wine, similar to the best *Catawba*, but of a peculiar aroma.

2 *Albans*, a Seedling raised from the seed of the blue Alexander grape by Mr. Garber, near Columbia, Lancaster Co., Pa.; hardy; berries white, pellucid, and of a honey sweetness; I will have it bearing fruit this year.

3 *Early Northern Muscadine*, originated by the Society of Shakers at New Lebanon, N. Y., pretended to be superior to any other, native or foreign, variety now known in this country, expected to become greatly improved by removal further South, ripening one month earlier than the *Isabella* or *Catawba*—quite hardy, notwithstanding the winters of New England, without protection. It is a profuse bearer; the fruit of an amber color and nearly transparent; skin very thin; has nothing of the foxy flavor. I have it growing now.

4 *Herbamont*, highly praised by Mr. Longworth as well for table use as for wine making. The wine I tasted in Cincinnati last fall and found it excellent. It is hardy and bears abundantly. I received about a dozen cuttings this spring.

5 *Miner's Seedling*, highly recommended; properties as yet unknown to me. I have it under trial now.

6 *Diana*, much spoken of by the German vinters in Ohio. I have it growing now.

7 *Emily*, raised by Peter Raabe of Philadelphia, from imported seed—a most vigorous and healthy grower—may require some protection in winter, otherwise highly promising. I grafted it a few days ago.

I also received and have under trial the Mus-

tang from Texas, the Golconda, a Riesling or Rulander seedling, and expect to get the *Rebecca*, a white grape, found near the Hudson river, to which a premium was awarded by the pomological society of Boston and New York.

How much soever we may rejoice at what we have already achieved in so new a branch of American industry, greater results by continued exertions may yet await us. Raising seedlings is in fact tedious and troublesome, but by doing so and crossing varieties, we may produce something perfect and entirely fit for our climate, or so many sorts as will best the soil and climate of every situation, North and South, East and West, and then the sunny hills and bluffs of Missouri will show a more smiling face. So far the mass of the Missouri people take very little interest in grape growing; they are mighty fond of grapes, but hate the trouble of raising any. Few will even take the pains of planting a vine by their dwelling houses, or learn how to trim it.

Our State contains unnumbered varieties of native grapes, some of which may repay the trouble of taming them. I will be thankful to every one who will send me seeds of the best kinds found growing wild. They ought to be vigorous, good and sure bearers, with sound and large berries with a sweet taste, of a thin skin, and juicy.

FREDERICK MUNCH.

Marthasville, Warren Co., Mo., May 12.

NEW ROCHELLE BLACKBERRY.

The name claimed for this fruit has excited some little interest among the horticulturalists of the country. It is always admitted both in this country and in England that the person who originates or discovers a valuable fruit is entitled to the right to give it a name, applying his own, or any other that he may deem most appropriate.

The New Rochelle blackberry, sometimes called Lawton blackberry, is a variety possessing vigor of growth, productiveness, size of fruit and excellence of flavor, found in no other variety. It was discovered some years ago, growing wild near the town of New Rochelle, Worcester county, New York, by Mr. Lewis A. Secor, who removed it to his own grounds and cultivated it. The plants were subsequently distributed among the neighbors of the place, until they became abundant, when the fruit was exhibited before the New York farmers club by Mr. Lawton, a citizen of the town, under his own name.

At the late meeting of the American Pomological Society, held in Rochester, the subject of the proper name of this fruit was introduced, but at so late a period of the session that it was laid on the table. But as Mr. Secor does not appear anxious to attach his own name to the variety, fruit growers, and the Agricultural papers of the country generally, by common con-

sent seem disposed to adopt the name of *New Rochelle Blackberry*. It is important that a name by which the fruit may be universally known should be adopted, and with a little care for a year or two on the part of nurserymen in making up their annual catalogues, and the writers in horticultural papers in adopting the name proposed it may become universally established.

We have no interest in the matter, further than justice demands, but it is important that all confusion in the nomenclature of fruits should be avoided as far as possible. We will therefore endorse the distinctive prefix to this fine fruit—*New Rochelle*.

CATERPILLARS.

The young caterpillars, the pests of the orchard are just coming out. The warm suns of spring nurse them into life. Now is the time to destroy them. Where the old nests have been permitted to remain through the winter a fine crop of young ones may be expected. We have already seen some nests hatching out. Let every fruit grower examine well his trees and see that none are left to grow to maturity. The limb on which they are located should be cut off and buried or burned, or they should be burned on the tree with some light combustible, or smoked to death, or destroyed in some way.—Each man may choose his own mode of warfare only wage a war of extermination on the little foes of the orchard. The man who destroys a nest of these vermin of the trees is a public benefactor. When orchards become plenty in the West, these may become the greatest enemies of fruit growing, especially unless they are prevented from increasing by a perpetual war upon them. Not a nest should be permitted to grow to maturity.

TRANSPORTING AND PACKING GRAFTS.—GRAFTING WAX.—J. B. G., of Atilla, Ill., is informed that grafts may be sent by mail by covering the ends of each with a slight coating of Shellac Varnish, tallow, or grafting wax, then covering the grafts with a thickness of cotton batting—a little damp, if they have far to go. This may be bound firmly round with a thread, and then the whole covered with oiled silk. They can be sent thousands of miles in safety in this way. When cuttings are sent by slower conveyance they may be put full length in boxes with moss, not wet but damp. They may be kept in this way in the cellar, from fall till grafting time; or they may be covered in the box with earth. Some nurserymen stick the ends in the soil and let them remain out all winter, but the better method is to cover them so as not to let the earth and water come in contact with them, but so as to keep them from drying. If they absorb moisture they do not grow so certainly.

Good Grafting Wax may be made by melting together rosin, beeswax and tallow, in nearly equal parts. The rosin being cheapest, the proportion of that may be increased, and the whole brought to a proper consistency to work with by adding more tallow, and yet so as not to run by the heat of the sun.

American Pomological Convention.

(Continued from page 157.)

White Doyenne—Mr. Field said this fruit was not so liable to crack on the quince as on pear. It was found by many to crack in certain localities. Mr. Ernst thought it should not be rejected too suddenly.

Winter Nellis—Was proposed to be added to the list by Mr. Frost—objected to by some.

Kingsessing was proposed by Dr. Brinckle as worthy to be added to the list for culture on the quince. Several members regarded it as a fine grower on the quince. Mr. Barry thought only those varieties that have been tried for some years should be recommended as some varieties like Belle Lucrative succeed for a few years and then die.

Brandywine—Mr. Townsend recommends this variety. Had trees seven years old which were vigorous and bore good crops. Messrs. Reid and Hooker had proved it and were in favor of its adoption.

Beurre Superfine—Mr. Prince recommended this variety as growing admirably on the quince stock. Mr. Reid had found it to do well on quince. Mr. Berckman's had known it in France 15 or 20 years—one of the best growers.

Rodney—This variety was recommended by Dr. Brinckle as one not excelled by any on the quince. First rate as a stock for double working.

Jolouiste de Fontenay Vendee—Messrs. Reid and Ernst could recommend this as very fine on the quince—grows well and bears large crops.

Gray Doyenne—Mr. Hovey wished to recommend this as a fine grower on quince. Other members had not been successful with it.

Flemish Beauty—Mr. Reid said it made a poor growth was good. This was also the experience of several others. Mr. Reid thought it unprofitable for nurserymen, as it was difficult to make it grow fit for sale.

Beurre Gris d' Hiver Nouveau—Mr. Frost proposed this variety as one that grew finely on the quince after the first year—the fruit being excellent.

Doyenne d' Alencon—This variety was recommended as doing well on the quince, by the President, Messrs. Barry and Reid.

Belle Epine Dumas—Messrs. Hovey, Saul, Reid, Berckmans and Prince recommended this variety as succeeding well.

Passe Colmar was considered a moderate grower on the quince by Messrs Reid and Saul. Mr. Hooker found it one the best he cultivated.

Buffren—Several leading fruit growers from different sections, all spoke in the highest terms of this pear on the quince.

Seckel—Mr. Smith of Syracuse recommended the Seckel. This led to a diversity of opinions generally adverse as to its adaptation on this stock.

Tyson—Recommended by Messrs Barry, Townsend, Reid and Hovey, as making a good tree on the quince.

Beurre Stockman—Recommended by Mr. Ho-

voy and Buist. Mr. Barry had trees five or six years old. They showed signs of decline.

Theodore Van Mon's—Mr. Berckmans tho't when this variety became better known it would be thought well of on the quince.

Kirtland—This pear was recommended on the quince by several members. Mr. Field called attention to a series of articles lately published in the Horticulturist, condemning the pear on the quince stock. He thought the people likely to be misled by them and wished the facts to be known. He had examined the trees in the grounds of the author of these articles and found that he knew but little about their cultivation. There was much said of the manner in which he cultivated his trees. The President said that 20 years experience and observation had convinced him that many varieties succeeded as well and were as durable on the quince root as on the pear. Have seen trees 20 or 25 years old, healthy and fine and Mr. Berckman's now present had seen them in Europe over 100 years of age, in health and vigor. Mr. Reid said the quince was naturally a long-lived tree and he could not see how grafting the pear on it could shorten its life.

NATIVE GRAPES.

Delaware—Mr. Prince thought this would prove to be the most delicious native grape, except perhaps the Scuppernon of the South. Dr. Grant found it perfectly hardy. Mr. Downing considered it one of the finest native grapes, and said it was perfectly hardy with him. Dr. Brinckle saw it in 1850 and thought it finer than any native grape that he knew, but had doubts of its being a native; Mr. Longworth had said it was not. Mr. Ernst thought Mr. Longworth had been mistaken in regard to it and was now satisfied of its American origin. Dr. Grant remarked that it was first discovered in New Jersey and introduced into Ohio 25 or 30 years ago. It was recommended as promising well.

Rebecca—Mr. Prince thought this was a variety of the Chapin family and thought no such grape could be perfectly hardy. Dr. Grant stated that it had been exposed with him on the Hudson for three years on an open trellis and had not suffered in the least while many other things which were usually hardy had been destroyed. Mr. Downing had found it perfectly hardy, though not a strong grower. Mr. Reid liked it because it was a white native variety and thought it desirable if only for that reason. Recommended as promising well.

To Kalon—Dr. Grant had known this grape for some years and esteemed it highly. Some remarks followed as to its color whether black or more of the color of the Catawba from which some thought it differed but little. Dr. Grant and others thought it better than either the Isabella or Catawba and a week earlier than the Catawba.

The President wished to direct attention to several Seedlings lately originated at Philadelphia, and called upon Dr. Brinckle for information in regard to them, who made some remarks upon five sorts, viz:

[To be Continued.]

The Home Circle.

COUNTRY GIRLS.

The world must always love its country girls. And this because they are generally fresh with characteristics. They look and breathe of the country. The flowers on their faces, the health in their frames, the freshness in their hearts, the innocence and truth in their souls must always recommend them to all whose esteem is worth having. Let them prize these things.—Health is the first essential to beauty and excellence. Health is the source of energy and the right arm of usefulness. Health is the great law of personal beauty. Health in the woman is the wealth of a country. Of what avail is an invalid woman? What is a nation of them worth? It is scarcely possible to prize good health too much. Then let the country girls seek wholesome ways of living, eschew all effeminating habits, and make it one object in life to obey every law of health, and never come under the doctor's care. Let it be their's too to learn the art of living, that is, learn how to live and live well. To know the art of living is a richer attainment than all the French and embroidery, music and painting of all the seminaries in the country. We have nothing to say against these fashionable accomplishments. We have every thing to say in favor of a good education for all the girls. But before every thing else of an educational character is the kitchen and dining room, the education of the home circle. The art of living is practiced in the home circle; it ought to be cultivated there. It ought to be studied. Simply working and eating is not living. Eating leaden bread, lard biscuit, fat pork, watery potatoes, tallow butter, greasy pies, and other things cooked in the worst possible manner, is not living in any true sense. Sleeping in close rooms, where not a breath of fresh air finds admittance once a week, in unsired beds, is scarcely living. Almost the whole art of living well, living intelligently, living so as to enjoy life, improve ourselves and be useful, is in the hands of women. It is soon to be left to the girls. How will they attend to it? Will they do just as their mothers and grand mothers have done? Will they make no improvements? Will they add nothing new and useful to the home enjoyments and comforts?—Girls must not be satisfied with doing just as their mothers did. We laugh at the farmer of these days who obstinately sticks to the old ways of his father, and sows his wheat broad-

cast where drilling is proved better, and reaps it with the old sickle in these horse-reaper times. So we should laugh at the house wife who makes no effort to improve upon her mother's style of house keeping.

There are improvements every day for all outdoor and mechanical work, why should there not be for the work of the house wife? Will the girls invent new and better modes of cooking, washing, sewing, mending, brushing, &c., &c. It is not possible that perfection in all that belongs to housekeeping is attained. I fear that women are not wide awake in relation to these things. They seldom try their inventive skill on any article of household industry. We have new kinds of soap, wash tubs, churns, cooking stoves, sewing machines, knitting machines, new ways of making bread, soup and many other dishes, that are really improvements on the old. But seldom if ever, has a woman introduced any of these improvements. Why not? Simply because women have not tried. They trudge on in the old way till somebody opens a better, and seem to think they must. This is wrong. And we propose that the girls shall wake up and see what improvements they can introduce, how much better they can practice the art of living than their mothers. And we appeal especially to the country girls, hoping that they will respond with suitable efforts for a better order of housekeeping. *

HOME POLITENESS.

There is nothing more agreeable in one's manners than true politeness. It secures favor and wins esteem everywhere. It strews one's pathway with pleasant flowers of human speech and action, and secures for its possessor testimonials of respect from all he meets. Some people seem to be naturally polite but most people will be awkward and ungraceful, and many even clownish without some attention to the culture of politeness. To be cultivated successfully it must be done at home. Home politeness is the only lasting politeness. It must be so cultivated as to become natural. And this cannot be without a daily endeavor to be polite at home. There are a thousand little courtesies which are truly polite and agreeable that many entirely neglect at home. Calling nicknames, using positive commands, abrupt and coarse forms of speech, repeating cant phrases, low and local vulgarisms, forgetting always to thank persons for little favors done and indulging in rude ways and words at home, is only so habituating one to these things that he will be sure to do them when he gets away from home. What one is at home he is likely to be abroad. Home characteristics and habits stick fast. Learn to be habitually polite at home and you will be so among strangers. *

HINTS TO HOUSEWIVES.

BY HETTIE HAYFIELD.

A CHAPTER ON WOOL.

We will not risk an opinion on the mooted question of the profits of sheephusbandry in this our great Western Valley, but we will say we know it is a convenient thing for the farmer's wife, with her great hearty family around her and subject to company every day, to have a joint always at command. The necessity for a fine saddle on state occasions, is indisputable.

We will not say in this day of horse and steam power, that it is always advisable to manufacture at home; but in a climate where woollens should be used for two-thirds of the year, they should for health's sake be abundant, and we have always noticed that they are more so when home-made than when bought. On frontier farms the manufacture of woollen is almost a necessity, and in slave holding, agricultural districts, wheels and looms afford regular, if not profitable employment for supernumerary women that cannot be very properly employed in outdoor labor.

The whole process of wool-work is dirty and disagreeable and very undesirable, unless the house wife can appropriate a room for the express purpose,—but if this room can be had, the business has one redeeming feature. It gives servants excellent habits of steady industry without requiring the oversight of the mistress. It is so easy to weigh out a reasonable amount of wool or rolls to be spun, and to receive it at night, that it scarcely be called a care on the mind. When, however, the work has to be *hired*, it is best for the young house wife to make a close calculation, in order to find whether her raw wool will not purchase, at some factory or store, the cloth needed, as cheap as she can produce it. In an experience of fifteen years we have found fine jeans and fine plaid linseys decidedly of less profit (leaving trouble out of the calculation) than brown or grey negro jeans. This quality of cloth used to remunerate well when clean wool was 25 cents per pound and jeans from 50 to 75 cents per yard. Of late years all qualities of wool have advanced in price without a corresponding rise in the value of woollen domestics, in our country towns at least, and consequently the profit to the home manufacturer is smaller.

The most economical method of home manufacture is, to have, through your shepherd's agency, a good proportion of your sheep black. This cuts off the most expensive and troublesome branch of the wool business, viz: coloring. Turn your wool all into grey jeans, which can be made of qualities to suit your laborers or rollicking school boys and be comfortable and respectable for both. Exchange the surplus for the plaids your less calculating neighbors have bartered to the stores, and you have your family provided for without staining a kettle. The wool factories make excellent cloths, but objectionable because their deficiency in width causes them to cut disadvantageously, and because the yarn being woven up in the grease makes it catch and retain dirt easily; besides,

the cloth has a disagreeable, greasy, sheepish odor. You may have your yarn spun at the factory, and then having reeled and washed it, have it woven at home, and so procure a web of equal strength and superior smoothness to any wholly home made fabric.

SHEEP SHEARING.

This process being properly out of the house wife's province, we will not intermeddle with it, but only hope it has been done in as clean and humane a way as possible, and that each fleece has been rolled up into a snug bundle.

If the wool is to be sold in the grease and is all of one quality, there is nothing to be done but to pack it as tightly as possible into clean, stout sacks. If to be manufactured at home, the first duty of the house wife will be to have the wool assorted—separating the black and white and picking out the fine fleeces for stocking yarn and fine cloths. Coarse, heavy wool, clean washed and carded into bats, without grease, makes excellent mattresses; it likewise makes respectable carpets.

WASHING WOOL.

This is generally done up summarily and in too much haste, for good work. We have seen the wool washed in a clean running stream, on the sheep's back, indifferently. We have seen baskets lightly filled, dipped into running water until the wool was tolerably clean. But we think it best to have it beside an abundant supply of water and wash what we wish to use white or color finely, in hot soap-suds, until perfectly clean. That which we intend to color black or with walnut dyes, we wash in cold water until free from dirt, leaving the natural grease in the fleece, because the wool seems in that state to have a greater affinity for those colors than when clean. Merino, or other wool that is very tenacious of the gum that is natural to it, can be easily washed free of it after soaking a few days in cow urine.

PICKING WOOL.

The amount of this labor that can be done in a day, depends on the condition of the wool and the perfection of the machinery through which it is to be passed. The wool of sheep kept in clean pastures and to be managed in a factory furnished with a picker, requires but nominal picking. Sticks, burs, or hard substances only need be removed. But ill kept sheep and old-time machinery, throw a labor upon the picker alike tedious and painful, as the wool must be pulled so open that every particle of foreign substance must be removed. Such wool will lose full half its weight in washing and picking. A steady hand can pick from five to fifteen pounds a day, according to quality.

CARDING.

The wool should be sent to the factory in strong sheets. Allow one pound of grease to twelve pounds of wool. If your rolls are to be mixed, put up the colors in the same sheet in the proportion you wish them used. For solid cloths it is best to color the wool, as a quantity of skein yarn can hardly ever be so uniformly colored as not to show different shades in the web. Mixed rolls should be passed through the cards twice to insure a uniform color.

SPINNING.

This should be done in a warm place, free from currents of air. The rolls should be kept warm by the sun and fire. The wheels should be first rate; the axle not much above the level of the elbow, and ready to turn at the slightest touch. Each spinner should be furnished with a spinning stick and a supply of well twisted cord for wheel bands. Every two or three spinners should have a reel, that they need not wait on each other. The practice of spinning brooches on papers or corn husks is not good. The brooches are too liable to tangle and require much time to reel them. Let each wheel spindle have a circular piece of stiff leather passed over it to the head of the wheel, the hooch can then be formed against this on the naked spindle, and when large enough, the reel being placed before the spindle, the yarn can be reeled off very easily and rapidly. Every cut of reeled yarn should be tied separately, and when you have as many as you wish in your hank or skein, a stout cord should be tied around the hank in three or four places,—these are called wash-bands, and prevent the yarn from tangling. The amount of spinning a person can do in a day depends on her natural activity. We have never required of others what we could not do ourself, accordingly we have usually obtained one cut of good linsey or carpet yarn for every hour of uninterrupted labor. All yarn should be well washed from grease or coloring matter before it is woven.

WEAVING.

Not much instruction in this business can be conveyed in writing; it is far more profitable than spinning. Few women can earn more than one shilling by spinning—few less than fifty cents by weaving, and largely more with a flying shuttle. If you are going for the first time into the weaving business, and your weaver has to learn, if possible, get the most improved fixtures. It is not worth while to worry over an old-time heavy machine, while an improved one can be had that with half the labor will accomplish double the work. Your best plan is to get a competent person to come and teach some capable and reliable servant the whole process; or better still, learn yourself and teach and direct as emergencies make it necessary.

WARP

For woollen cloths is usually of cotton yarn. Each hank should have several wash-bands tied around it. If colored it must be washed clean; if to be used white, it must be well boiled in soapuds. All warp should be stiffened by dipping into a thin corn gruel; this is called sizing, and is, together with spooling, generally done by the weaver, if you put out your work.

Cottons are numbered. No. 500 is the usual warp for coarse jeans or linsey, the yarn for which is drawn eight cuts to the pound. One doz. will warp two and a half yards. No. 7 is the warp for cloth of ten cuts to the pound, and the fineness of the warp and filling are thus relatively increased. For carpets, there is an excellent warp made in the factories, but good can be prepared at home by doubling and twisting coarse cotton, flax or hemp thread together.

Coarse jeans is sometimes woven on white warp, but looks better on colored, (one lb extract of logwood and one lb of alum will color the warp of 100 yards.) The colors for linseys should be all fast, both for the warp and filling.

Flannels are of woollen, both warp and filling. The warp is best spun with a cross band. It can be spun like other cloth from 8 to 20 cuts to the pound, according to the quality of the cloth desired. It makes the best cloth for fulling, and if desired for that purpose should be at least a quarter of a yard wider than the cloth is desired to be when full; a quarter should likewise be allowed to each yard in length for shrinkage. The fulling is done at mills for the purpose. This cloth makes excellent overcoats.

Blankets are best made all of wool. They are sometimes woven on cotton chain and as plain flannel, but usually on woollen warp and in what is called blanket twill. This yarn should be very coarse and soft, especially the filling. The yarn should be bleached before weaving. A broad stripe of precisely the same width can be woven in at equal intervals and so form a border for the two ends of the blanket. If two widths are desired, they should be joined with a flat seam. Then being washed perfectly white, the blanket should be stretched tight over a clean table and combed with a clean card until it looks like a light bat of snowy wool. This service being rendered both sides and a ribbon binding put on as a finish, you have an article ready for the fair or the best guest chamber.

For Venetian or striped carpet, the yarn should be spun 10 to 12 cuts to the pound, allowing at least one pound to the yard, doubled three times, twisted and dyed in good colors. The yarn is the warp and four threads in the reed will hide the filling (which is usually of dark cotton carpet warp entirely.) It is woven like girting, and makes a servicable and handsome carpet, especially for halls and stairs. We have seen one used daily for thirty years.—

Expensive.

Chene Carpet—The warp may be plain, dark or striped, of cotton carpet chain. The filling is of wool, spun about eight cuts to the pound. The yarn should be divided into three parts and dyed of any three colors, then twisted together and woven as plain linsey. A careful weaver may stripe this in the filling, so as to have as almost an unbroken stripe as in the Venetian. Any way, this is a pretty, servicable, and cheap carpet, costing very little trouble.

A good carpet may be made of wool flyings in this same fashion.

Stocking yarn should be made of the best wool, spun with a crossed band, if to be knit single, eight cuts to the pound for coarse hose, 12 for servicable wear for active farmers and school boys, 16 to 24 for ladies' and little childrens' chess hosiery. Mixed and black hose look nicest for family use. Childrens' gay colors may be spotted by tying around the skeins (before dying) a cord, very tightly, or wrapping several thicknesses of corn husks around the skeins while wet and binding them on very closely.

Bleaching yarn is done by soaking it several days in some whey from buttermilk, then smoking it over a fire of embers strewn over with brimstone. The yarn must be dampened and carried through this process several times.

COLORING.

A clear day, good dyestuffs, large kettles of copper or brass, and an ample stock of patience, will generally in this branch of manufacturing insure success.

Black.—Dissolve 2 lbs. of copperas in as much water as will cover well 20 lbs of wool, while scalding it an hour. Then dissolve 2 lbs. of Extract of Logwood in the same quantity of water used for the copperas. Drain the wool dry, put it into the dye kettle and boil it for an hour. If not colored to suit, add more extract and boil again. A piece of blue stone large as an almond, will give the wool a fine blueish cast.

A good purple may be dyed as above, substituting alum for copperas, and omitting the blue stone.

Brown.—Cold brown dye is done by putting alternate layers of wool and green walnut bark in a close vessel. Fill the vessel with rain water. Every few days the wool must be taken out and dried and replaced occasionally with fresh bark, using the same water. This is tedious and troublesome, and we think the end easier gained by boiling the bark or green walnut hulls, straining the liquid and then boiling the wool in it until the color suits.

Yellow.—For pale yellow, make a strong dye by boiling green peach leaves in water. For light yellow, boil tanners' oak bark. For orange, use hickory bark and one pound of Nicaragua chips for the ooze. Then having scalded the yarn for an hour in water in which one pound of alum was allowed for three pounds of yarn, drop it into your dye and boil until the color suits you.

Green.—Alum your yarn as for yellow. Prepare a strong ooze of yellow oak bark, then have ten days before mixed oil vitriol 1 lb. to 1-2 oz. of best indigo, pour of it into your dye until the color pleases you. Boil the yarn in it an hour or more, airing it at intervals.

For a green that will wash, dye your yarn yellow; wash clean and dip into a good fast colored blue dye.

Blue.—For 1 ounce of indigo allow 1 lb. of madder. Mix the madder to a soft mass with water which has stood on wheat bran some hours. Set your dye tub in a warm corner, put in it a bucket of weak ley. Have your indigo in a bag and rub it out into the ley until deep as you wish your color. Mix your madder sponge in the dye, then procure from some person who has dye ready for use, at least one quart of their dye (this is called yeast) and stir it in your dye. When your dye assumes a greenish cast and looks frothy it is ready for use. Dip your cotton or yarn without any preparation but washing in soap suds.

Red.—The day before coloring, in a tub one third filled with bran, pour on water enough to fill the vessel. Likewise mix with bran water one pound of madder for every three pounds of

wool intended for coloring. Alum your yarn as directed for yellow; then having strained your bran water into your kettle, mix the madder sponge in it and boil your yarn in it from one to three hours, according to the color desired. When dry, dip the yarn in good ley—dry and wash clean. One pound of Nicaragua ground and soaked in soft water two or three days, will dye yarn previously alumed, crimson, by boiling in it three hours; common red, two hours; lilac one hour; crimson and lilac to be dipped in ley—weak for the lilac—one pound chips to three of wool.

In no dye crowd your yarn in the kettle.—Stir all colors continually.

The World is full of Beauty.

There is beauty in the forest
Where the trees are green and fair;
There is beauty in the meadow
Where wild flowers scent the air
There is beauty in the sunlight,
And the soft blue beam above;
O! the world is full of beauty
When the heart is full of love!

There is beauty in the fountain,
Singing gaily at its play,
While rainbow hues are glittering
On its silvery shining spray;
There is beauty in the streamlet,
Murmuring softly through the grove;
O! the world is full of beauty
When the heart is full of love!

There is beauty in the moonlight
When it falls upon the sea,
While the blue, foam-crested billows
Dance and frolic joyously;
There's beauty in the lightning gleams
That o'er the dark waves rove;
O! the world is full of beauty
When the heart is full of love!

There is beauty in the brightness
Beaming from a loving eye;
In the warm blush of affection,
In the tear of sympathy;
In the sweet, low voice whose accents
The spirit's gladness prove!
O! the world is full of beauty
When the heart is full of love!

QUESTIONS.

We propose that the readers of our "Home Circle" will propose questions and make suggestions about things and subjects they would be informed or inform others upon. In a multitude of counsels there is wisdom. The mothers and wives and daughters who read our pages, often have suggestions arising from their own experience and reflections, which we should be glad to read, and many questions we would be glad to answer. Our home is but one of many. We get our reflections chiefly from our own home. Others would be serviceable to us and our readers. So send in your questions and thoughts. They will all be thankfully received and kindly attended to.

Editor's Table.

New Subscribers.

Notwithstanding the VALLEY FARMER now circulates in many thousand homes where it did not circulate a year ago, yet we are still anxious to extend its usefulness among the sturdy yeomanry of our land. To enable thousands of farmers to become acquainted with its merits who are now unacquainted with it, we are induced to make the following proposition, and will be thankful to our present patrons, who have already laid us under many obligations for similar favors, if they will give it the widest possible circulation:

We will mail SEVEN NUMBERS of the Valley Farmer, commencing with the June No., to the end of the present year, for FIFTY CENTS, to single subscribers. To clubs for the same time, as follows:

Six copies	\$2.50
Ten "	4.00
Thirteen copies.....	5.00

And one copy free to any one sending a club of ten or more subscribers.

We have printed a large edition for June for the accommodation of new subscribers.

Back numbers for the present volume (1857) complete can still be supplied at the regular rate.

THE WEATHER AND THE CROPS.—The weather, since our last issue, has continued cold and unfavorable for spring crops; vegetation is nearly a month behind ordinary seasons. The spring has been severe, and in many sections, disastrous to stock. In a considerable number of the States, we learn that many cattle have died from want of food, even in the rich valley of the Mississippi, many farmers find themselves short of grain and are compelled to resort to the cities for food for their cattle and teams. This, we learn, has been the case in all the principal cities in the West. Hay, corn, and all the offal at the mills have been eagerly sought by the neighboring farmers to sustain their famishing animals. This certainly implies something wrong in the economy of feeding and the management of the crops of the farm.

The last four weeks of cool weather, however, have been favorable for the growing wheat. Instead of being forced into joint by the ordinary rapid advance of our seasons, the plants have tillered and the roots extended so as to repair, in a great degree, much of the injury caused in some sections by the unfavorable weather of the past winter. In a journey of several hundred miles among the farmers, from Kentucky to western New York, we find the prospects for a fair crop of winter grains have much improved. The fruit prospects, notwithstanding the severe cold of the past winter, have seldom been more promising. From the Ohio river, to Lake Ontario, we find most kinds of fruit uninjured. Throughout Ohio there will be more or less peaches, and in many sections but few buds have been killed. In the vine districts of Ohio the grape presents an unusually promising appearance.

The temperature during the most of the month of May has been too cold for corn to vegetate, and it is possible that a large portion will require to be replanted.

Natural Philosophy and Farming.

There are numerous departments of Natural Philosophy that have a bearing more or less direct upon the interests and operations of the farmer, some knowledge of which is important to all. We propose, then, to treat briefly, upon some of these subjects, in future numbers of the Valley Farmer. It is probable there are many farmers' boys within the reach of our widely circulated journal whose situation precludes the opportunity of a systematic course in these studies in the country school, whose attention we would especially invite. There are no branches of greater importance and none more interesting that can occupy their leisure hours, and if what we may say upon the subjects of which we shall briefly treat, will induce them to make more thorough investigations in the broad fields of science, to which nature everywhere invites, we shall feel that we have not labored in vain. It is a lamentable fact that the youth, and boys too, of larger growth, of the present day, and particularly in the towns and cities, confine their reading to that class of periodicals with which the country, in its length and breadth is now flooded, and which too often tends to degrade and demoralize, and finally opens the way to vices and crimes that so prominently mark the present age.

We intended to introduce the subjects proposed, in the present number, with an article on "Electricity," to be followed in our next with one on "Lightning Rods," but by some misunderstanding that article found its way into the May number, without the knowledge or supervision of the writer, uncorrected and unfinished, which we exceedingly regret. We now give the one on Lightning Rods, which will be followed by others treating of some of the wonders of the great ocean of Atmosphere which surrounds us, the nature and uses of the Barometer, the pretended influence of the Moon upon vegetation, and upon various operations of the farmer, &c. &c.

It is a fact, becoming more and more evident every day, that Meteorological phenomena have much to do with the health, prosperity and well-being of man. The researches of Lieut. Maury have clearly demonstrated this in regard to the ocean. From the result of his labor sea voyages are now made to the various quarters of the globe in one-third less time than they required before, saving to the commercial world many millions of dollars annually; and what is of infinitely greater importance, wonderfully lessening the dangers by sea, and thereby saving thousands of human lives. He is now directing his giant mind to the same subject in its connections with the land, and with special reference to the benefit of the farmer. It is, therefore necessary that the farmer should become familiar with these laws in their various results. We therefore deem them as legitimate subjects to occupy our pages as any facts having a direct bearing upon the more simple routine of growing wheat or of the cultivation of potatoes.

NEW MAIL BOOKS.—We have just transferred our entire list of subscribers from the old mail books to new ones. It is possible that in copying the names some omissions have been made, although great care has been taken to prevent any. Should any exist, however, or should any of our patrons fail to receive the June No. we shall esteem it a favor if they will notify us of its non-reception.

MILLET.—T. P. M. of Mount Gilead, Ohio, asks for some information in regard to Millet. The seed may be sown any time from the present to the middle of July. The ground should be put in good order, as for wheat; and when hay is the object, a bushel and upwards of seed to the acre will produce more hay and of a finer quality than when less is sown. When seed is the object, one third or one half the quantity will be sufficient. It yields best when drilled by hand or with a machine, about eight inches apart. The seed threshes very easily, and can be got out immediately, in any of the ways employed for threshing wheat or other grain. The yield is, according to the soil and season, fully equal to oats. Seventy bushels have been grown to the acre, but this is rather an unusual crop. There is always a demand for it at the seed stores. For several years past it has retailed at \$2, and upwards. The demand has long been beyond the supply.

SCAB IN SHEEP.—The same correspondent wishes a remedy for this disease. Sheep in low condition are more liable to scab than otherwise. Like the "itch" in the human family, it is caused by a minute insect of the "acari" species. Sheep with this disease manifest it by rubbing; the wool becomes loosened in places over the body, where dry, hard tumors will be discovered. When sheep are attacked with scab they should at once be separated from the flock.

Remedies.—There are various remedies, but an effectual one will be found in the following: Take one pound of water, to which add twelve quarts of ley from wood ashes, of the usual strength for washing, and four quarts of urine; to this add a composition of one gill of alcohol, one-half ounce camphor, one-half gill spirits turpentine. A small quantity applied to the sores will effect a cure. Posts and fences where sheep have rubbed should also receive an application of this composition. When sheep have just been sheared, scab may be readily cured by making a strong decoction of tobacco-water, adding a gill of spirits of turpentine, and immerse the sheep, all except the head, in it, adding, occasionally, tobacco and turpentine. If any considerable number are to be treated. For lambs, the liquor should be only so strong as to kill ticks in two or three minutes, which can be determined by experiment.

The Ray County (Mo.) Agricultural Society will hold its annual fair at Richmond, commencing on Tuesday the 22d of September and continue four days.

The Lafayette county, (Mo.) Fair will commence on Tuesday, October 6th, 1857.

H. M. CLARK, P. M., desires us to send the Valley Farmer to JOSEPH WILSON, JR., but as he has not given us the Post Office, we cannot do so until we hear from him again.

The Montgomery county fair will be held on the 16th, 17th and 18th days of September next. Their premium list amounts to \$800.

OFFICERS OF THE CLINTON CO., (ILL.) AGRICULTURAL SOCIETY, FOR 1857.—O. B. Nichols, President; Reuben Rutherford, Smyth Moore, and John Clabough, Vice Presidents; M. E. Richard, Recording Secretary; Benj. Taylor, Cor. Sec'y; David Pardee, Treasurer.

One of our subscribers has sent us the following. It is certainly gratifying to us to have our Journal so highly approved of by its patrons:

SEVEN REASONS FOR LIKING THE VALLEY FARMER.

1st. Because its matter is reliable. I consider that the editors would suffer nothing else to appear in its columns.

2d. Because the articles are well timed, giving useful hints for the season.

3d. Because the greater part of what is published is original, being therefore, under no necessity of borrowing from like periodicals to 'fill up.'

4th. It is particularly adapted to the West. In this respect better suited to our wants than other Agricultural papers.

5th. Because it is monthly. On this account we have time to read and thoroughly digest the information contained in one number before another comes.

6th. Because it is cheap. Considering its merits, as cheap as any other paper—certainly cheap enough.

7th. Because the editors are men of ability, and show that they have the interest of the cause at heart.

This is not the place for passing high encomiums, but to you, my fellow farmers, let me say, Sustain them as long as the Valley Farmer holds its present high reputation. Sustain them by your patronage. Sustain them by your influence in obtaining new subscribers; and sustain them by occasionally sending your experience for publication. This is a matter perhaps not sufficiently regarded by many farmers. If you have made any discoveries in science, any improvements in your profession, I hold it to be your duty to impart it to others and thereby prove yourself a benefactor to your race. Don't publish a card saying that, for \$1 enclosed, or for three or four postage stamps you will tell something valuable; but if you can do it, out with it, and let us have the benefit of your experience.

I might give other reasons for liking the Valley Farmer, but seven good reasons for anything, ought to be recommendation enough.

UNITED STATES AGRICULTURAL SOCIETY.—At the meeting of the United States Agricultural Society, held in the city of Washington, among a number of important resolutions which were adopted, was one urging upon Congress the endowment of an Industrial University in each State and Territory, by grants of public lands of not less than \$500,000 to each; and a committee was appointed to bring the measure before that body.

This is a subject of the highest importance to the individual States, and to the country at large, and we hope it will receive the favorable consideration of Congress. No better appropriation could be made of the public domain. Another committee of five persons were appointed to enquire into the origin of the disease known as "Hog Cholera." This disease has swept off thousands of hogs the past season, both at the East and in the West; nor has it been confined to hogs fed at distilleries, where in some instances almost the entire number fed have died, but it has raged with deadly violence in many of the farming districts.

EDITORIAL CALL.—We had the pleasure of a call in our sanctum, the other day, from F. T. Shepherd, editor of the Lagrange (Mo.) Bulletin.

FAIR OF THE N. E. MO. AGRICULTURAL SOCIETY.—The Board of Directors of the North Eastern Missouri Agricultural Society was in session in this place during the past week. There was a pretty full Board present, and much business appertaining to the interests of the Society transacted. The question as to the place of holding its annual fair, was finally disposed of, by purchasing the fair grounds of the Monroe Agricultural Society, at this place, for \$2,000, to be paid for in equal payments—which fixes the fair at this place permanently. The grounds are to be further improved to the extent that the means of the society will justify. A liberal list of premiums was made up, which will make its appearance in the prints so soon as the Secretary can prepare the same for the press, which will be in the course of a very few days. Some unworthy articles embraced in the last year's list were excluded and others more worthy were inserted in their place—while on many things the premiums have been increased, and the sweep-stake list largely extended. Taking it altogether, we think the list will reflect credit upon the society, and cannot fail to call forth the greatest competition for the various prizes. To this end, as well as to render the awards just and satisfactory, and to foster and encourage every department of the industry of the country, were the labors of the Board directed.

The time fixed upon for the next Fair—15th of September and days following—is full early in the season, and from the scarcity of feed and the backwardness of the season, may to some extent operate to the prejudice of the exhibition; but this could not well be avoided, as the selection of a later day would have conflicted with other societies, which had previously fixed upon and published the time of holding their fairs, with which it was desirable not to interfere. But with a favorable season from this on to the fair, there can be no difficulty in getting up a very creditable exhibition. Our last fair was one of the best in the State, and we hope that our farmers, mechanics, artisans, and in short, all departments of industry, will wake up to the importance of making our next fair fully equal to if not surpassing the first. To do this should be the aim of all who feel any interest in furthering the objects of the society, and in sustaining the cause it is designed to promote.—[Paris Mercury.]

COUNTY AGRICULTURAL FAIRS.—The next annual Fair of the County Agricultural Society of Morgan County, Illinois, will be held at Jacksonville, on Tuesday, Wednesday, Thursday and Friday, Sept. 8th, 9th, 10th and 11th, 1857. The officers are, Robt. Pollock, President, and Irving Dunlap, Secretary.

The next annual Fair of the County Agricultural Society of Pike County, Illinois, will be held at Pittsfield, on the second Wednesday and Thursday, the 14th and 15th days of October next.

OFFICERS OF THE PRAIRIE CO., (ARK.) AGRICULTURAL SOCIETY.—R. McIver, President; Judge Hunt Vice President; J. S. Pearson, Secretary; Chas. F. King, Treasurer.

Directors.—Dr. Womock, Dr. J. M. Britton, Judge Reynolds, J. Mayberry, Dr. Hasen, S. Kennedy, W. D. Means, J. G. Warner, C. W. Smith, Thos. Hervey, Col. Hill and J. B. Regard.

LIBERAL PREMIUMS—REAPERS AND MOWERS.—

The St. Louis Agricultural and Mechanical Association offers a premium of one hundred and fifty dollars for the best Reaper and Mower, combined; one hundred and fifty dollars for the best Reaper, and one hundred and fifty dollars for the best Mower. Entries for competition must be made with G. O. Kalb, General Agent, No. 65 Chestnut street, on or before the 14th of June. Competition invited from all the States. Notices of the time and place of trial will be given in due time.

Papers friendly to the Association are requested to give this notice a conspicuous place in their columns.

REAPING MACHINES—A CHALLENGE TO THE

WORLD.—Baron Ward has given notice to the Imperial Agricultural Society, of Vienna, that he challenges all the manufacturers of Reaping Machines, whether in Europe or America, to compete with his machine, for One Thousand Florins, in cutting seven acres next harvest,—the trial to come off in the Austrian dominions. Those who accept the challenge may have the choice of cutting either wheat, barley, oats or clover. The award to go to the machine that shall do the work in the shortest time and the best manner. This challenge has been made public through the London Times and other journals of Europe. We hope that Jonathan will be represented with his wheels well oiled and his blades in cutting order.

A FINE CHANCE TO PURCHASE DURHAM CATTLE.

—The society of Shakers, of Pleasant Hill, Ky., will have, on or before the first of June, thirty head of pure bred Short Horns for sale in or near the city of St. Louis. There are in the lot 13 young Bulls from 12 to 20 months old, 8 heifers from one to two years old, and 9 cows from 3 to 4 years old, all in calf. Most of the bull calves and some of the heifers are by the best imported bulls the country affords. We do not know yet, where they can be seen, but shall soon know, and will take pleasure in informing any who will call at our office where they can be found. A rare opportunity is now offered for the farmers of Missouri and Illinois to purchase fine stock. Come soon, and examine them for yourselves.

UNITED STATES AGRICULTURAL SOCIETY—TRIAL

OF MOWERS AND REAPERS.—The committee appointed by the U. S. Agricultural Society to select a suitable place for the trial of Mowing and Reaping machines, have visited Geneva, New York, and have determined on holding the great National trial near that place, provided the necessary funds can be raised to defray the expenses. A committee have been appointed to call upon the citizens for the purpose, and we presume they will not be wanting in liberality in this respect, and that Geneva will be the point determined upon.

THE NEW STATE FAIR GROUNDS.

—The grounds selected at Peoria for the Illinois State Fair in September, are those belonging to the County Agricultural Society of Peoria county. The tract embraces some twenty-two acres, is beautifully located on the bluff, overlooking the city. The grounds are well watered by several fine springs, and comfortably shaded with handsome groves.

Mr. Gus. Egin, of Howard county, Mo., recently sold two steers, one five and the other four years old, the gross weight of which was 4,995 pounds.

UNION AGRICULTURAL AND MECHANICAL ASSOCIATION.—At a meeting of this Association, held at Eminence, Ky., on the 6th of May 1887, the following officers were elected for the ensuing year:

President, ROBERT MALLORY, re-elected,

Vice President, ORVILLE FORD,

Secretary, W. S. HELM,

Treasurer, MORRIS THOMAS.

DIRECTORS, S. T. Drane, Evan Henton, Dr. J. Baker, J. N. Blakemore, W. W. Taylor, Wm. M. Gibson, Jas. O'Bannon, Calvin Ford and John B. Hays.

OFFICERS OF CLINTON Co., (Mo.) AGRICULTURAL AND MECHANICAL ASSOCIATION.—REV. A. H. F. PAYNE, President; JOHN A. TORBITT, 1st Vice President; JAS. R. COFFMAN, 2d do; A. W. PALMER, Secretary; Wm. L. FERGUSON, Treasurer.

FRANKLIN Co., (Mo.) FAIR.—The first annual Fair of the Franklin County Agricultural and Mechanical Association will be held in the town of Union, commencing on the 8th day of October and continuing three days. H. Cheatham, Esq. is President and R. A. King Secretary of the Association. A list of the Directors has not been forwarded.

LAWRENCE Co., (Mo.) AGRICULTURAL AND MECHANICAL ASSOCIATION.—An Agricultural Society has recently been formed in Lawrence county, Mo. The following gentlemen have been elected officers of the Society, viz: P. A. Dudley, President; Jno. Guthrie, Vice President; Lewis Lamkin, Secretary; T. R. Whaley, Treasurer; S. A. Gardner, Collector.

Directors—H. F. Williams, Jno. D. Allen, Allen Miller, P. A. Dudley, E. G. Paris, R. B. Nicholas, Jno. Hash, N. A. Patton, Jno. Guthrie.

The fair will be held on the first Wednesday after the fourth Monday in September.

OFFICERS OF THE MONROE Co., (ILL.) AGRICULTURAL ASSOCIATION.—E. P. Rogers, President; Jacob Horine, Jas. W. Nimerick, Jas. Sennott, W. W. Bamber, D. M. Livers, D. S. Fairchilds, Austin James, Amos Gardner, and John Whitesides, Vice Presidents; M. T. Horine, Treasurer; W. R. Morrison, Corresponding Secretary; H. C. Talbot, Recording Secretary.

The following gentlemen were elected Executive Committee: Valentine Briegel, Jackson Ryan, S. W. Miles, jr., W. Wible, L. James, A. S. Keaggy, A. Poston, P. L. James, Thos. Coop, W. Frick.

OFFICERS OF THE BOONE Co. (Mo.) AGRICULTURAL SOCIETY.—President, Eli E. Bass; Vice President, A. W. Turner; Treasurer, James H. Parker; Recording Secretary, Joseph B. Douglass.

Directors—Harvey Lamme, John W. Harris, John W. Hudson, Henry Keene, J. S. Clarkson, Wm. J. Gordon, James Ruckle, Wm. H. Curtright and Joseph Estes.

The next annual fair will commence on Tuesday, September 22d, 1887.

HELVIE HAYFIELD says that the imp of our office or her home copyist of the article on "Poultry," have rendered it nearly unintelligible by numberless errors,—that she would be inconsolable if said errors were not as glaring that she thinks any moderately charitable person will be able to account for them.

LOOK OUT FOR HIM.—One C. W. J. Fairchild, we learn, is soliciting subscribers for the Valley Farmer. This is to notify all that he is not an agent for this paper. We regret that a number of persons have been imposed upon by him.

EDITORS VALLEY FARMER.—I take the liberty of propounding some questions to you, which I would be pleased to have you answer at your earliest convenience, in the Valley Farmer:

1st Which variety of the Irish potato is best adapted for cultivation in the latitude of St. Louis?

2d What is the price of Manny's Reaping and Mowing Machine, and can they be procured at St. Louis?

3d What is the price of the different sizes of Singer's Sewing Machine?

4th Are there any Horse power machines manufactured expressly for sawing wood into 'firewood lengths,' if so, what would be the cost of one suitable for sawing the wood for a farm?

If the price of articles advertised was always given in the advertisement it would be much more satisfactory to purchasers.

H. B.

Answer 1st. Neshamecks are the best potatoes for cultivation here.

2d Kinglands & Ferguson, of this place manufacture Manny's machines: price, including two sickles, \$135 cash, or \$145 half cash, balance on four months time.

3d Singer's sewing machines cost, according to size, from \$125 to \$155. Edwin Dean agent, St. Louis, Mo.

4th Kinglands & Ferguson manufacture "Cut-Off Mills" for sawing up firewood, at the following prices: Cut-off mill and Two Horse Endless Chain Power, \$190; One Horse Rodless Chain Power, \$165; do exclusive of Power, \$50.

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A Monthly Agricultural Journal, designed to benefit the Planter, Farmer, Gardener, Fruit Grower and Stock Raiser.

VOL. 9:

JULY, 1857.

NO. 7.



**Dr. C. De MONTREVILLE,
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The natural Teeth will receive all the care of which they are susceptible, by the operations of Cleansing and Filling with Gold to insure them from loss,—or Extracting when useless from decay. The teeth of children carefully attended to.

Artificial teeth incerted by various methods, on pivots on the natural roots, on atmospheric pressure, suction, clasps, or springs,—on solid silver, platine, porcelain, aluminium, gata percha, or in any desired way, to suit the inclinations, the purse and the pleasure of those who may require.

Fifteen years of active practice in this city and the city of New York, will warrant me in saying that the whole resources of the Art will be employed in the just perfecting of any work entrusted to me. Mar.ly.

CATTLE, CATTLE.

I have a few choice Alderney and Jersey Cattle for sale. They are from stock of my own importation and bred with care. Also Suffolk and Chester White Pigs of the best blood. Address JOHN B. POYNTZ, Mayville, Ky. No. 534.

EMERY'S

PATENT CHANGEABLE HORSE POWER,

Thresher, Separator, Saw, &c., &c.

The subscribers are now prepared to contract for the delivery of these justly celebrated Machines for the season of 1857.

Our price for the Two Horse Power with Thresher and Separator, &c., will be 180 dollars, delivered on board of any conveyance in the city, or we will deliver on the Mississippi river, at the terminus of any Railroad running from Chicago, for 260 dollars.

This will give to those wanting in Upper Missouri, Iowa, Minnesota and Wisconsin, an advantage over buying at any other point in the West.

CAUTION—Should be observed in buying the Horse Power, that the genuine

EMERY'S PATENT

Are obtained, as none are made except they bear the stamp and brand of

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MANUFACTURED BY

EMERY BROTHERS.

This remark is made because the reputation of the Power has induced IMITATIONS to be thrown into the market and are of inferior construction and workman-ship.

Full and Descriptive Catalogues are furnished gratis to all on application.

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**MANNY'S PATENT
REAPING AND MOWING MACHINE
MANUFACTURED BY**

S. N. & W. H. PURSE,

Ashley, Pike county, Mo.

Having made several valuable improvements in these machines, we now recommend them as being the **best Reapers and Mowers** ever offered to the public. The most important changes made since last season are as follows.

1st. Instead of using the stationary wooden axle as before, the main wheel is fastened on an iron axle, which revolves with the wheel; and the wheel being enlarged, makes the machine of much lighter draft.

2d. The gearing is so arranged that the dirt is prevented from falling on it, so that there is no difficulty about keeping it greased.

3d. The platform is made wider and nearly straight, making it much easier to rake off the grain; also various other changes, all tending to make the machine more easily managed; of lighter draft, and more durable than before.

These machines can be thrown out of gear at any time, and taken from one field to another on their own wheels, without running the cutting apparatus. They can be raised or lowered so as to cut from one inch to thirty inches high, without stopping the team—thus avoiding the necessity of going around stumps, stones or other obstructions less than thirty inches high, and can be changed from a reaper to a mower or from a mower to a reaper in one minute. All side draft to the team entirely avoided.

We are making two sizes of machines for this season; the large machines will cut a foot wider than those made last season.

Price of 5 foot machines, with 2 sickles.....\$135

Price of 6 foot machines, with 2 sickles.....\$145

Machines shipped according to order, the purchaser paying cost of transportation from the shop. All orders addressed to the undersigned will meet with prompt attention.

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Ashley, Pike county, Mo.



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Motion, Point, Diamond and other patterns for Field or Working, or Plow, also, Contractor's Iron Plow, for Railroads.

[25. 57. 19.]